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This Issue in Brief

The displacement of labor by machinery, which is such a startling feature of present-day American industry, arouses serious interest as to what is to become of the workers thus displaced. This is a social problem of the first importance. It is also a business problem, for an unemployed worker ceases to be a consumer. The Secretary of Labor urges that while there must be no limitation upon mechanical improvements, provision must be made to avoid any extended idleness on the part of workers superseded by machinery (p. 32).

Indoor recreation facilities for industrial workers are now maintained in a very large number of industrial establishments. These facilities include clubhouses, recreation and rest rooms, gymnasiums, bowling alleys or game rooms, swimming pools, and lectures, moving pictures, etc. Usually the company provides the necessary buildings and equipment, while in many cases the running expenses are borne jointly by the company and the employees. These undertakings, however, have not always been successful, about 100 of the 430 establishments scheduled having discontinued one or more of such activities (p. 1).

A survey of the retirement systems for employees in public service is now being made by the Bureau of Labor Statistics. Descriptions of the New York system for State employees and of two New Jersey systems—one for State employees and one for teachers—are given in this issue (p. 14).

More than a million persons in the United States have mental or physical impairments so severe as to make of them a social burden, according to the Metropolitan Life Insurance Co. Exclusive of cases of ordinary sickness, it is estimated that there are about 75,000 blind, 45,000 deaf and dumb, and, counting only those in institutions, about 320,000 mentally deficient. In addition, there are about 78,000 paupers and about 700,000 persons who are so crippled as to interfere more or less seriously with their earning capacity (p. 62).

The rapid increase in the use of mechanical sprayers for many kinds of painting has aroused much apprehension as to the health hazards connected with the process. No exhaustive study of the subject has yet been made, but sufficient material is available to indicate some of the hazards to be guarded against. Many of the paints now used do not employ lead, but the other bases used involve the presence of other harmful substances (p. 59).

The occupational hazard of locomotive firemen is particularly pronounced. This is indicated by the fact that during the period 1916 to 1925, 1,315 were killed and 67,437 were injured in train and train service accidents on Class I railroads of the country. Besides the accident hazard, the fireman is peculiarly susceptible to certain diseases, particularly pneumonia, heart disease, and kidney disease (p. 50).

Changes in union wage scales from 1913 to 1927 are given in detail, by trades, on page 112.

The salient features of industrial relations in the United States as viewed by the deputy director of the International Labor Office are: First, the widespread discussion and study of all phases of industrial relations; second, the voluntary assumption by employers of heavy social charges, which the author believes "is remarkable, whatever its motive"; and third, the efforts being made to bring about real cooperation between employers and employees, the experiments in cooperation with trade-unions being of particular interest (p. 39).

The question of negroes being barred from trade-unions was a subject of discussion at the institute on the negro in industry, recently held at Brookwood College. Recommendation was made by one of the speakers that the negroes do their own organizing and federate their existing unions (p. 109).

The fifth Pan American Labor Congress, recently held, brought together delegates from the United States and from 11 other member countries. In the short period of its existence the Pan American Federation of Labor, which was established in 1918, has done much to further the purpose for which it was organized—i. e., to bring the working people of Pan America into "closer harmony and unity." An account of the proceedings of this congress is given on page 90.

Resources of $124,000,000 and deposits of $108,000,000 were reported for the 33 labor banks at the end of the fiscal year 1926–27, according to the statement prepared by the Amalgamated Clothing Workers of America. This statement, like those of previous dates, shows a continued steady development in this type of bank (p. 75).

The failure of a purchaser to get the worth of his money, through the sale of products which have been adulterated or which will not fulfill the purpose for which they are sold, or which may be dangerous, and through short weight or measure and useless variation in products, is discussed in an article on page 204.

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Indoor Recreation for Industrial Employees

EMPLOYMENT in industry frequently carries with it much more than the routine existence comprehended in the particular job the worker fills. Many companies endeavor to supply, where this is desired or needed, the means for entertainment of various kinds, to develop the capacity for social leadership, and to promote social contacts among their employees. The accessibility of plants to the homes of the workers, the existence of a community of interests among the employees, and a desire or willingness to carry over the association of working hours into their leisure time are the factors which determine to a large extent how much the employer may offer in the line of sport and entertainment or of cultural activities.

Some executives feel that the provision of such facilities lessens the employee's feeling of independence, but many have found that opportunities for various types of recreation, or for musical or dramatic expression can be successfully provided if the employees are given a free hand in organizing and developing the different activities. Considerable talent is frequently revealed among musical and dramatic groups which might not be discovered without the encouragement provided in these company organizations, and in a number of cases musical organizations, including choruses, orchestras, and bands, under the direction of competent leaders secured by the company, have become important factors in the musical life of the city or community.

In the May issue of the Labor Review some account was given of the opportunities for the various kinds of outdoor recreation which are maintained or assisted by employers. In the present article an account will be given of the indoor facilities provided for the rest and recreation needs of employees.

In a survey recently made by the United States Bureau of Labor Statistics of the personnel activities carried on by employers, schedules were secured from 430 establishments with approximately 1,977,000 employees. Of this number, 235 provide clubhouses, club or recreation rooms, rooms for different games, such as billiards or pool, bowling alleys, and gymnasiums, while 316 companies provide lectures, moving pictures, and concerts, or assist in the maintenance of bands, orchestras, or glee clubs.

These features of industrial life are not uniformly successful, however, as about 100 companies reported that one or more of these activities had been given up. Lack of interest on the part of the employees was the reason for the discontinuance of 23 musical organizations, 6 gymnasiums, 3 bowling alleys, 2 clubhouses, and 1 dramatic club, while other companies reported that the cost was too great, or that the results did not justify the expenditure. A number of plants gave up much of their personnel work during the World War and it has never been revived. Musical organizations seem to be the most difficult to manage, partly on account of changing personnel and partly because of the difficulty of securing competent leaders.

Rest and Recreation Rooms

IN A large number of plants, rooms of varying degrees of attractiveness are furnished for the use of employees for purposes of recreation or relaxation. These rooms are used by employees for rest, if the work processes are sufficiently fatiguing to warrant giving rest periods to all or part of the employees, for rest and recreation at the lunch period, and frequently for social affairs after working hours. Sometimes the lunch room or rooms serve for noontime gatherings of various kinds, for dances, and for other social affairs. About one-third of the firms visited provide special recreation or clubrooms, while in many other cases these rooms are found in the clubhouse.

There is great variety in the size and equipment of rest and recreation rooms, as they range from small and plainly furnished rooms or a corner of the plant set aside for this purpose to rooms with elaborate furnishings and equipment. Even though the rooms may be quite unattractive, if they have comfortable chairs, tables to use at lunch time, or, as frequently happens, facilities for preparing lunches, they add immeasurably to the comfort of the workers. The more elaborate rooms for girls have easy chairs, davenports, reading tables and reading lamps, writing desks with stationery furnished, current magazines, often a Victrola or piano or both, and in some cases very good pictures, ferns, well-chosen hangings, and other features which add to their attractiveness. For men there is often a well-furnished smoking room, with tables for cards, checkers, or similar games, or with newspapers and other reading matter.

The following table shows, by industries, the number of establishments having clubhouses, rest and recreation rooms, gymnasiums, and various special game rooms:

FIG. 1.—RECREATION ROOMS IN A PLANT MANUFACTURING PAPER PRODUCTS

FIG. 2.—GIRLS' REST ROOM IN A SUGAR REFINERY

UNIV. OF WIS.

TABLE 1.—NUMBER OF ESTABLISHMENTS PROVIDING SPECIFIED TYPES OF FACILITIES FOR INDOOR RECREATION

Industry	Establishments covered in study		Establishments having recreational facilities		Establishments reporting—					
	Number	Employees	Number	Employees	Clubhouses	Recreation or clubrooms	Billiard or pool rooms	Bowling alleys	Gymnasiums	Game rooms
Manufacturing:										
Automobiles and airplanes	19	247,939	4	32,007	1	2				2
Boots and shoes	5	25,040	5	25,040	2	3	3	3	1	2
Chemicals, soap and allied products	7	13,905	7	13,905		4	1	1	1	1
Clothing and furnishings	16	27,467	6	9,843	3	4	1	1	1	3
Electrical supplies	18	80,595	18	80,595	3	14	6	7	3	13
Fine machines and instruments	12	53,192	8	38,375	1	2	1		1	5
Food products	13	21,415	9	9,649	1	5	3	4	3	3
Machine shops	49	125,907	23	67,066	5	13	15	13	11	10
Furniture	4	3,870	2	1,960		1	1	1	1	1
Gold and silver	3	6,605	3	6,605	2	1	3	3	1	2
Hats	2	4,276	1	3,975		1	1	1	1	1
Iron and steel	12	323,384	5	23,518	4		5	5	5	5
Ore reduction	6	8,745	5	6,145	5		5	5	4	5
Paper	11	12,739	7	8,179	3	3	2	1	1	4
Printing and publishing	5	8,635	4	4,135	1	2				
Rubber goods	11	65,418	7	34,924	3	3	2	2	3	2
Slaughtering and meat packing	4	23,400	1	3,900		2	1			1
Textiles	56	86,853	37	110,524	21	15	9	9	7	8
Tin and enamel ware	1	3,100	1	3,100		1	1	1	1	1
Miscellaneous	24	62,119	13	30,684	6	5	5	3	3	5
Total	278	1,204,604	166	514,129	61	81	65	60	48	74
Logging and sawmills	4	5,176	1	1,112	1				1	1
Mining and quarrying	24	56,265	16	35,087	10	3	9	8	2	9
Public utilities:										
Steam railroads	3	276,620	3	276,620		3	3	3	3	3
Electric railroads	12	95,025	8	52,259	1	10	4	1	2	5
Gas, electric light, and power, telephone and telegraph	19	127,786	13	105,879	5	7	3	6	4	6
Total	34	499,431	24	434,758	6	20	10	10	9	14
Offices	19	40,246	11	19,922	2	10	2	1	2	3
Stores	52	137,250	16	51,461	2	27	3	1	5	9
Other industries	19	34,752	1	450		1				1
Grand total	430	1,977,724	235	1,056,919	82	142	89	80	67	111

In general, the recreation rooms are provided for the factory as well as the office force, and, although in a few instances there are separate rooms, in the majority of cases the same rooms are used by both classes of employees. Separate rooms for men and women are the rule, although a few establishments have one room used by both, and where the lunch rooms are used for recreational purposes it is customary for them to be used by the men and women alike.

The extent to which these rooms are used by employees is shown in the case of a mail-order house which employs about 5,000 people. A well-equipped smoking room is provided for the men, and an attractively furnished rest and recreation room for the women which is used by the majority of the 2,000 girls at some time during the day. This room has a grand piano and a Victrola and the girls are allowed

to dance once a week during the lunch period. The room easily accommodates 500 at one time and it is not uncommon for it to be used to capacity during the noon hour.

Clubhouses

A SEPARATE clubhouse had been provided for part or all of their employees by 82 of the companies visited. This figure includes some companies—notably the railroads and the southern cotton mills—which carried on this work through the Y. M. C. A. or Y. W. C. A. In most of these cases the company had built or purchased the buildings used and sometimes they served one or more industries, but in the mode of operation and in the service rendered to employees they take the place of the regular clubhouse and fulfill the same purpose.

Although many of the clubhouses offer a wide range of activities and give their members surroundings and opportunities similar to those offered by any well-ordered club, they need not be elaborate in order to serve a very useful purpose. In a number of cases quite simple buildings and furnishings are much used and appreciated by employees. Such a clubhouse may consist of one large room with tables and chairs, books and magazines, and pool or billiard tables, and may be used, therefore, largely for reading and for playing games. On the other hand, the clubhouse may be practically a community center, and in such cases is under the direction of persons capable of organizing and directing the athletics and the social affairs of the members.

Due to the nature of the industry, the large railroad companies handle these activities somewhat differently from other companies. Some of them have clubhouses for small groups and there are many clubs throughout the organizations, but much of the social and recreational work is turned over to the branches of the Y. M. C. A., and these organizations provide the facilities and supervise this work at the different division points. They provide game rooms, clubrooms, libraries, gymnasiums, dormitories, and lunch rooms, as well as classes, concerts, lectures, and social affairs; and they often organize orchestra and glee clubs.

At one of these Y. M. C. A. centers in a large city there is a lunch room where meals are served at reasonable rates and a room with facilities for cooking, which is used by at least 25 men a day. There is also a dormitory, patronized by about 1,500 men a month, where a bed can be had for 25 cents a night or for 20 cents by buying a dollar's worth of coupons. All rooms have hot and cold showers, and soap and towels can be had for 5 cents. Dues here are $2 a year, and from four to five hundred men a day take advantage of the privileges in one way or another. On New Year's Day there is open house for the men and their families; a turkey dinner at a reasonable rate is provided, and there is a program, an orchestra for dancing, and gifts for the children.

Many of the textile mills have provided clubhouse facilities for their employees. One clubhouse built by a northern mill has rooms for both men and women and an auditorium seating 1,000 persons in which the seats are removable, so that it can be used for dancing. The clubhouse was turned over to the employees to run, but is main-

FIG. 3.—READING AND WRITING ROOM IN A CLUBHOUSE FOR WORKERS IN A COPPER MILL

FIG. 4.—SMOKING AND RECREATION ROOM FOR MEN IN A MAIL-ORDER HOUSE

tained by the company. There are no membership dues, but a small fee is charged for dances and other social affairs with the exception of the band concerts. The house is used a great deal during the noon hour, after work, and in the evening.

Another textile company, located in an industrial center, bought a fine old house just outside the city, converted it into a clubhouse, and turned it over to the employees to manage. Practically all of the employees are club members and the house is the center of all the employee activities, both indoor and outdoor, as it serves in the summer as a country club. The clubhouse is in constant use for dances and entertainments of various kinds, many of the entertainments being for the benefit of the band or the club. For the purely social affairs, a collection is taken among the group giving the party and the service department gives an amount equal to that collected. Sunday afternoon concerts are given, for which outside talent is secured, and these are well attended. The club is operated on a budget basis, and through the membership fees, proceeds of entertainments, and an annual bazaar, is practically self-supporting.

In the majority of the southern cotton mills the club work is part of a general community program which is centralized in a community house, frequently with a staff of paid workers. In other cases it is carried on by the Y. M. C. A. or Y. W. C. A. or directly by the employer. Whatever the medium through which the work is organized, however, it usually includes the provision of kindergartens and nurseries, clinics, home visiting, and nursing, clubs for wives and children of employees, classes in sewing and cooking, playgrounds and gymnasiums, and in fact all phases of the home life are touched. Since the families of the employees participate to so great an extent, an account of this type of activity will be treated in a separate chapter.

A western mining community of about 300 families has a clubhouse, provided by the employing company, which in 1925 had an average monthly attendance of 5,060. A membership fee of 25 cents a month entitles a member and his family to the use of the clubhouse, a small additional charge being made for the use of the bowling alleys and swimming pool. This club is the center of all social activities for the community, with moving pictures several times a week, billiards, pool, bowling alleys, showers, lockers, reading and lounging rooms with current magazines, newspapers, and books, a recreation room for all kinds of entertainments with a kitchen adjoining for serving refreshments, and special rooms for the women.

Another concern employing about 1,500 people maintains a theater with a fine pipe organ and a seating capacity of 1,700, which is used for moving pictures and other entertainments. Next door to the theater is a modern clubhouse, on the first floor of which is a large room which can be used as gymnasium, dance hall, or auditorium. It has a seating capacity of 1,200 and a well-equipped stage. There is a beautiful spoon-bottomed swimming pool 25 by 75 feet, well-equipped showers, and dressing rooms for both men and women. On the second floor are the clubrooms, consisting of a lounge, a library, and a service room where soft drinks and sandwiches can be purchased. The lounge is a very spacious and beautifully furnished room with easy chairs, davenports, special tables for cards,

FIG. 4.—SMOKING AND RECREATION ROOM FOR MEN IN A MAIL-ORDER HOUSE

checkers, and chess, and a large fireplace. The library is a smaller room furnished in much the same style as the lounge.

The clubhouse is open to members and their guests and is available for other groups by making arrangements with the industrial relations department. In addition to the regular clubrooms, there is a room with a good floor for dancing which is used by employees who are not members of the club or by any group when the clubhouse is in use. The company also maintains a very attractive home for the personnel staff, the first floor of which is used for club meetings, parties, and dinners for small groups, and occasionally for community affairs.

A clubhouse much less elaborate and of very different type is maintained by a company in a small town where practically all of the residents are connected in some way with the industry. This clubhouse is used by the entire village, even the local teachers and the resident doctor being club members. In addition to the regular members, there are family, associate, or junior members, the dues ranging from 25 cents a year for junior membership to $10 a year for full membership; these dues entitle them to full use of the clubhouse, in addition to sick benefits and other privileges. The company contributes an amount equal to that paid in by members. The clubhouse has an auditorium which is used for entertainments, dancing, volley ball, basket ball and indoor sports of all kinds, a game room with billiard and card tables; clubrooms on the second floor, reserved for the use of the women's division, have a piano, victrola, radio, two sewing machines for the use of the girls, and a kitchenette with conveniences for self-service. They are used a great deal by the women and children. Every year there is a Hallowe'en party for all the children in the village.

A company employing 17,000 people maintains a large clubhouse, or community house and library combined, in each of its two adjoining towns, and in addition a smaller clubhouse for the exclusive use of the foreign workers, though these employees are also free to use either of the larger clubhouses. These clubhouses are provided and maintained entirely by the company and are used by the entire community. They are very nicely furnished and well kept, an attractive feature being the well-chosen pictures, and each has a completely equipped kitchen. Any organization in the community may have the use of the clubhouses without charge, by making arrangements with the service department. They are used by the different church societies, women's clubs, various civic organizations, scout groups, and library and musical societies, besides many groups of employees. There are special play rooms for the children and hours for supervised play, story telling, cooking and sewing lessons and parties. During 1925, 18,000 children attended the story telling at the two community houses, and 1,000 groups used the clubrooms.

A public utility company with about 3,200 employees has an employees' club which has been in existence for more than 25 years, and at the present time 75 per cent of the employees are members. The club is governed by employees elected from the different departments. Dues are $1 a year and the company pays to the support of the club an amount equal to the yearly dues. The company built a group of very fine substantial buildings a number of years ago,

FIG. 5.—CLUBHOUSE FOR ELECTRIC STORAGE BATTERY WORKERS

FIG. 6.—BOWLING ALLEYS AT A TEXTILE MILL

UNIV. OF MICH.

consisting of a recreation building, a library, and a restaurant. The grounds, which cover about 30 acres, are beautifully laid out and well kept, and there are tennis courts and a baseball diamond. The building used as a restaurant and auditorium is also used for dances and other social affairs. There are a well-equipped stage, dressing rooms, a small balcony, and a moving-picture machine.

The recreation building consists of a lounge with a large open fireplace, a pool and billiard room, bowling alleys, showers, and wash and locker rooms with 200 steel lockers. The library building, the third of the group, consists of a lobby, a clubroom with a large fireplace, a smoking room, and a library with 2,000 books and many current magazines and papers. The smoking room can be made into smaller rooms by means of sliding walls and used for committee meetings and games. On the second floor are furnished rooms which are rented to male employees. The broad verandas extending entirely around the building and a covered portico connecting all of them are attractive features. Members may bring their friends to the buildings provided they do not bring the same person more than twice in one month.

A steel company employing 3,000 people has a men's club of 1,000 members which has been in existence for about 20 years. It occupies a clubhouse which has clubrooms, game rooms, library, and pool rooms. Dues for members are 25 cents a month. There is also a club for the colored employees, in connection with the Y. M. C. A., and the company provides a clubroom there for their use. The company also maintains a community house for the foreign-born employees and their families, at which classes in English and in citizenship are given for the men and in English and in sewing for the women, as well as classes and entertainments for the children, and a well-equipped playground.

Management, Dues, and Membership

NO SPECIAL inquiry into the subject of club management was made in the course of the bureau's study, but this information was furnished in 56 cases. In general, the companies maintain a certain amount of supervision over the clubhouse, which varies from entire control by the company to direct charge of the club affairs by an employees' committee, but with some degree of oversight by the company. The extent of the activities centered in the clubhouse determines the number of persons required for its successful management. Thirty-nine clubhouses are managed by a staff of paid workers under the supervision of the company, this number including most of those in which the clubhouse is the center of the social and recreational life of the workers and of the community. The affairs of most of the other clubhouses are in the hands of an employees' committee or are managed by a board of directors which in several cases acts under the direction of the industrial relations department.

Many of the companies did not report whether there were any restrictions as to club membership, but of those reporting on this point, in about 100 cases membership was open to all and frequently to members of employees' families as well. In a few cases clubs were formed and sometimes a clubhouse was provided for special

groups, such as foremen and engineers or technical men, and in certain other cases dues were so high as to be in themselves prohibitive for many employees. Fifteen companies reported there were no dues or fees in connection with their club activities, with the exception of small charges for the games or social affairs.

The membership dues in the clubhouses range from 25 cents to $50 a year. One club has an initiation fee of from $5 to $10 and yearly dues of $5 to $20, according to the grade of membership. In another club of 500 members the dues are $33.50 yearly, but these high fees are exceptional and the majority range from $1 to $6 a year.

Bowling Alleys or Game Rooms

BOWLING seems to be the most popular form of indoor sport and large numbers of employees are interested in the game. Bowling alleys were provided by the company in 80 cases, but this is not a true index of the popularity of the game, as many companies have organized teams which play on rented alleys or use the community facilities when such are available. If a bowling alley is provided in connection with the clubhouse or the plant, a moderate charge, sufficient to cover the cost of operation, is usually made, or if the teams use public alleys the company may pay part of the fees for games, buy shirts for the men, or give a banquet to the winning teams at the end of the season. Tables for billiards or pool are provided both in clubhouses and in clubrooms in the plants by 89 companies, while 111 companies reported that rooms were available for their employees in which a variety of games, such as cards, checkers, and chess, could be played.

Very incomplete reports were secured as to the number using these facilities, but one company having eight bowling alleys reported that these are used by an average of 3,200 a week, and another that about 16,000 men had bowled during the year.

A large rubber company which provides 12 alleys has 24 organized teams of 5 men each, the fee charged being 15 cents a game. One team is chosen each year from those having the highest averages and is sent to the State tournament.

Swimming Pools

INDOOR or outdoor swimming pools were reported by 48 companies and several of these firms have both. Fifteen other companies rent either Y. M. C. A. or Y. W. C. A. or high school pools for the use of their employees and in a number of cases pay a swimming instructor. In addition to this, several companies have built bathhouses and dressing rooms at nearby lakes or at the beaches for the use of employees.

Not many firms keep records of the number using the swimming pools, but the following examples show that in some places the pools are much appreciated. A textile company having two pools, one for men and the other for women, reports that 27,000 people used them during the year, and another firm employing 4,000 workers reports that 3,000 persons used the two pools each month. Another company employing 800 people reports that its pool, which is avail-

FIG. 7.—POOL TABLES IN MEN'S RECREATION ROOM

FIG. 8.—AUDITORIUM FOR EMPLOYEES OF A MACHINE MANUFACTURING COMPANY

UNIV. OF MICH.

able to the whole community, was used by 16,750 persons during the year. One concern has an indoor pool used by about 2,200 club members and other employees each month and an outdoor pool used by the entire community.

In a few cases a small charge is made for the use of the pool and showers and frequently there is a charge of from 2 to 5 cents for soap and towels.

Gymnasiums

SIXTY-SEVEN firms visited provide gymnasiums, which in 60 cases are open to all employees, while in the other 7 they are for the use of club members only. Eighteen additional firms engaged the use of outside gymnasiums, paying part or all of the fees.

One company employing 16,000 people has a fine gymnasium in the building which houses all the recreational and educational activities. The gymnasium is large enough so that several games can be in progress at one time, and has a seating capacity for spectators of 3,800. In a representative week this gymnasium was used by 12,000 people for indoor baseball, basket ball, tennis, and gymnasium classes.

A textile firm, having a paid instructor, reports that 5,053 people enrolled for gymnasium classes and that there were 26,000 spectators at the various games during the year. Another company with 2,900 employees reports that from September to July an average of 1,165 a month used the bowling alleys, 950 the pool room, 1,550 the gymnasium, and 416 the boys' game room. Another cotton mill with 800 employees reports that during the year 12,631 men and boys took regular gymnasium work, 15,782 used the bowling alleys, and 21,873 used the game room.

Basket-ball teams are maintained by 129 firms, and 66 of these have gymnasiums or recreation rooms where games are played. Twenty firms report that Y. M. C. A. or high school gymnasiums are rented for games, in 2 cases the employees' lunch room is used, and 41 did not report where games are played. In most cases it was found that the company supported the team in some way, either furnishing the members' suits or prizes or paying transportation when games are played out of town.

Much of the athletic work of the railroads is handled through the Y. M. C. A., and these organizations provide game rooms and gymnasiums in towns where a sufficient number of employees are located to warrant their establishment. The different divisions compete in various athletic sports, and finals are held at points where a considerable number of employees are located.

One company reports that about 22,000 people participated in athletics throughout the system in 1925.

Among the employees of one railway company, boxing is a very popular form of amusement and boxing arenas are maintained at several points. Matches are held at these points in the evening and free transportation is furnished for those who wish to attend. There is a great deal of rivalry between divisions and these matches are attended by from 900 to 1,000 people.

Social Gatherings

THERE were 316 companies with about 1,350,000 employees that reported social affairs among their employees, such as dances or card parties, banquets or parties on special occasions such as Hallowe'en or Christmas, while a considerable number each report lectures, moving pictures, or concerts given for their employees, or organized bands, orchestras, or glee clubs. The following table shows the number of establishments having each of these activities, by industries:

TABLE 2.—NUMBER OF ESTABLISHMENTS REPORTING EACH TYPE OF SOCIAL GATHERING, BY INDUSTRY

Industry	Establishments reporting—						
	Dances and other social affairs	Lectures	Moving pictures	Bands	Orchestras	Glee clubs	Concerts
Manufacturing:							
Automobiles and airplanes	13	1	1	7	5	2	6
Boots and shoes	4	2	1				2
Chemicals, soap, and allied products	7			2	3		4
Clothing and furnishings	12	4	2	1	4	1	4
Electrical supplies	18	6	5	7	6	3	10
Fine machines and instruments	9	3	3	1	4		3
Food products	10			5	3	2	8
Foundries and machine shops	26	5	6	9	4	7	12
Furniture	2	1	1	1	1	1	1
Gold and silver	3	2	1	1			1
Hats	1				1	1	1
Iron and steel	8	3	1	4	2	1	4
Oil refining	3			3	2	1	3
Ore reduction	6	1		2			2
Paper	7	1	1	1	1	1	1
Printing and publishing	4			1	1		1
Rubber goods	9	1		1	2	1	1
Slaughtering and meat packing	2			1		1	1
Textiles	51	14	18	26	3	3	22
Tin and enamel ware	1			1		1	1
Miscellaneous	24	2	5	5	3	1	9
Total	220	46	45	79	45	27	97
Logging and sawmills	3		1	2	1		3
Mining and quarrying	15	4	9	3	4	2	4
Public utilities:							
Steam railroads	3	3	3	3	3	3	3
Electric railroads	9	1		6	5	3	6
Gas, electric light and power, telephone, and telegraph	18	3	1	3	7	7	12
Total	30	7	4	12	15	13	21
Offices	13	5	2	2	3	3	6
Stores	35	3		5	18	21	23
Grand total	316	65	61	103	86	66	151

The social affairs are usually conducted by the employees' club, the athletic association, or the mutual benefit association, and are financed in various ways. A few firms reported that they have only one social gathering a year, this usually being a banquet given by the company to the whole force, but a large number reported that there are social gatherings throughout the year. Social affairs are often handled in groups because of the diversity of interests and the large numbers to be entertained, which make their handling often

something of a problem. Dancing, being the easiest and most popular form of amusement, of course, predominates. Occasionally it is found that social affairs are conducted by the club and are for club members only, but this is not generally true, and if the club confines its affairs to members only, there is often provision made for the entertainment of the other employees.

One company with a club of 800 members and a very fine clubhouse has also an attractive recreation room where parties are given by girls who do not belong to the club. These parties are carefully chaperoned and tend to have a very wholesome influence over the younger employees. Even where there is no clubhouse provided, there are often numerous social affairs. Usually there are large rooms in the plant which, with the expenditure of a little labor, can be temporarily converted into recreation rooms and used for social gatherings. Twenty-eight firms report that the lunch room is used for this purpose. Occasionally the broad corridors of the office buildings are used for parties and bazaars and in a few cases an outside hall is hired for the evening.

The several organizations of one concern in a large city have a mutual agreement that all surplus from concerts and entertainments shall go into a fund which is used to help the families of employees in time of emergency. This fund was established by the chorus and each year the proceeds of two concerts and one or two plays and the bazaar are given to this work. The greatest source of revenue is the bazaar which is held in the evening in the corridors of the downtown office building. The employees' band or orchestra plays and the bazaar, which is open to the public, is attended by large numbers.

Some firms whose employees, for various reasons, do not care to return in the evening or remain after work for entertainments provide noon-hour programs. These programs consist of talks, moving pictures, music, dancing, one-act plays, etc., being varied from day to day and often attracting large numbers. There is also less tendency on the part of employees to leave the grounds if there is entertainment of some kind during the noon hour.

There is often dancing at noon, sometimes for girls only, but in a number of places an orchestra is provided, usually once a week, and both men and girls dance.

One company makes good use of a very plainly furnished recreation room and auditorium combined, having noon programs consisting of moving pictures, band concerts, dancing (one day a week), talks, and one-act plays or skits put on by different groups. The fife and drum corps is on the program at least once a week. Some of these programs are quite elaborate and the auditorium is often filled to capacity. One of the orchestras, composed of employees, furnishes the music for the dancing and the members are paid for their services.

Another company has a large rest and recreation room which can readily be converted into a gymnasium or auditorium and is used by several hundred every day during the noon hour. The programs are quite informal as a rule, consisting of moving pictures, group singing, Victrola music, and occasional lectures.

Lectures, Moving Pictures, Etc.

SIXTY-FIVE companies report that lectures or talks are given for employees. These talks cover a variety of subjects, such as health, hygiene, travel, and other topics of general interest, and are often illustrated with moving pictures.

Moving pictures are shown for employees by 61 companies either in the clubhouse, the Y. M. C. A., or the theater or auditorium. When pictures are shown at the clubhouse they are usually for members only and are free, but when the theater or auditorium is used they are open to all employees and usually to the whole community and a small fee is charged, the chief advantage being that better pictures are seen for moderate prices.

Sixty-seven companies provide an auditorium to be used for various performances and entertainments, the seating capacity ranging from a few hundred to several thousand. These rooms usually have an adequate stage, occasionally special lighting apparatus, and often removable seats so that they can be used for dancing or as a gymnasium.

In many cases the employees' dining room is used not only for social affairs but as an assembly hall as well, and there is often a stage in one end of the lunch room, a piano or Victrola or both.

Musical Organizations

BANDS, orchestras, and glee clubs which are organized on a company basis and which receive substantial assistance from the company are numerous. Organizations of this kind require much time if they accomplish anything worth while and a considerable amount of money is spent on them by the different firms. Many of the companies furnish the larger instruments, uniforms for members of the bands, and the music, and frequently they hire leaders and pay the players for the time spent in rehearsals and sometimes for their services when furnishing the music for company affairs.

One hundred and three of the firms visited reported bands, 86 have orchestras, 66 glee clubs, and a number have a fife and drum corps, while often an impromptu orchestra is made up from the band members who play orchestral instruments.

One large manufacturing establishment has a symphony orchestra, six smaller orchestras, a band, and a fife and drum corps, all of which receive from the company any help needed. They play for various civic and company affairs, and the symphony orchestra gives outside concerts. One of the smaller orchestras plays for dancing during the noon hour and the members are paid for their services. A village made up largely of employees and their families has an orchestra and a band including employees and other townspeople. Many concerts and entertainments are given, the majority being benefits for the library, the band, the American Legion, or some other organization, and concerts are given in the park each week during the summer. A large department store has a girls' band of 35 pieces, a boys' band of 45, a colored boys' band of 35, a chorus including all the juniors, and an orchestra improvised from among the band members when needed.

Some of these organizations which received help in the beginning have become entirely self-supporting through concerts given outside. One particularly fine drum corps, composed of 45 girls, plays for various outside organizations, the proceeds being divided among the members. They are well paid for their services and no longer need financial help from the company.

It is not uncommon to find that the leader is associated with the company in some other capacity. In one case the general manager of a large store conducts the chorus of 125 voices, and in another the safety engineer in a manufacturing plant has charge of a band of 35 pieces, an employees' orchestra of 12 pieces, and a symphony orchestra whose personnel includes both employees and outsiders. This band is much in demand for public concerts and is more than self-supporting, occasionally using the proceeds of a concert for charitable purposes.

Some of these musical organizations play for company affairs only, such as dances, banquets, exhibitions, games, and noon-hour concerts. Twelve bands give regular noon-hour concerts each week through the year and play for many special occasions besides, and 25 bands give outdoor concerts through the summer. Orchestras often play during the noon hour for dancing.

One large department store has an organization for the benefit of employees, known as the Association of Music. Any employee after 30 days' employment may become a member by signifying in writing his intention to become proficient in the playing of a given instrument and his willingness to attend rehearsals regularly. There are no dues or fees of any kind and the company furnishes all equipment, instruments, uniforms, music, competent instructors, and time for individual instruction. The company maintains a band of 48 pieces, an orchestra, and a quartet. These various organizations furnish the music for all employees' festivities, for dancing at noon, and for municipal affairs. In consideration of the advantages offered by the association, members are not allowed to accept fees for their outside services without the approval of the director of the association. Members may become owners of their instruments by purchase from the company at cost, or through the awarding of credits as recommended by the board of directors. Credits are awarded for punctuality and attendance and for appearing in public or private concerts. The number of credits required for the securing of the different instruments ranges from 400 to 1,500.

Other Clubs

THE active organizations among employees are not confined to those having a social aim, but there are clubs formed for study or for philanthropic purposes. Among these groups there are, besides the musical organizations and those doing dramatic work, those interested in sewing, millinery, cooking, basketry, gymnasium work, and study of various sorts. There are also many clubs doing welfare and relief work.

The company often helps to finance this work even though it is not confined to families connected with the industry. One such girls' club with 25 members, including both factory and office, keeps

open house every other week for the little girls of the neighborhood. Only 100 can be accommodated and there are always more than this number wanting to attend. There are classes in kindergarten work, basketry, sewing, embroidery, group singing, story telling, health talks, chorus singing, and games. There is always a Christmas party and a dressed doll for each child. The dolls are on exhibition for a week before the party and employees pay five cents admission to see them, the money being used for the children's party. Luncheons are given by the girls' club and a free dinner is furnished by the company to the whole organization, at which time liberal donations are made for the children's party and other Christmas work.

One of the large railroad companies has a women's organization which is active throughout the whole system, the aim being relief work among the families of employees. The club has one sewing day a week when garments are made to be given out. It loans money, buys coal and food and clothing, pays doctors' bills, gives regular monthly aid to widows, sends out Christmas baskets, and cooperates with the city charities in looking after families. Dues are 25 cents a year and money is raised by giving luncheons, card parties, and dances. Another railroad Y. M. C. A. has a club for the younger men with a carefully planned program of concerts, lectures, dances, and parties to which they can bring their friends.

Financing Clubs and Social Affairs

NO SPECIAL information was secured in regard to financing clubs and social affairs, but it was found that in the majority of cases the clubhouse, auditorium, or other facilities for indoor recreation are provided by the company, and the company usually pays overhead expenses and upkeep of these places. In a few cases the entire expense is borne by the company and in one case there are no dues or fees of any kind for use of facilities, but this policy is not a general one and in many cases the running expenses are borne jointly by the company and the employees, the company often paying into the treasury an amount equal to the dues of members. Occasionally clubs and social affairs are financed entirely by dues and by admission fees for entertainments. A number of firms stated that clubs were supposed to be self-supporting, but that it was understood that any deficit would be paid by the company.

Public Service Retirement Systems: New York and New Jersey

UNDER the general heading of "Public service retirement systems" an account was given in the Review for August of some city and State retirement systems of Pennsylvania, based upon an investigation which the Bureau of Labor Statistics has under way. In this issue it is proposed to describe three State systems, one in New York and two in New Jersey, which were all established within a comparatively brief period, which were based upon the same principles, and which resembled each other in a number of details, but which have been developed along somewhat different lines.

New York State Employees' Retirement System

THE New York State system was organized under a law passed in 1920 as the result of an investigation and report made by a commission on pensions appointed in 1918 to study and report on the whole question of pension systems in the State. The commission found that apart from militia pensions and pensions maintained by cities or other local subdivisions of the State, there were in existence six different pension systems for State employees, varying widely in their requirements and in the benefits bestowed. There were also a number of city and county systems, some supported wholly by the employing agency, some wholly by the employees, and some jointly. There was no uniformity in the conditions for securing a pension, and in the majority of cases there was no particular relation between the contributions required, when such a requirement was made, and the benefits received. Also, the financial soundness of the plans was in many cases questionable.

Although the commission had not the means to make actuarial investigations of the financial condition of these funds, it came to the conclusion that, judged by the conditions found to exist in funds that were known to be on an insolvent basis, the governmental plans for employees throughout the State, with the exception of certain plans in New York City, could not be said to be operating on sound bases.[1]

As a first step the commission proposed a plan which should include State employees not covered by specified existing pension plans, and which should also be open to the employees of a municipality or county desiring to come into the plan, provided that the employing agency should pay the same portion of the final benefits received by its employees that the State pays on behalf of those whom it employs directly. This plan was enacted into law in 1920, and the State retirement system was established January 1, 1921.

Meanwhile the commission continued its work, and in successive reports presented plans for bringing into the system other bodies of employees, until finally all State employees should be covered by either the State employees' or the State teachers' retirement system. These recommendations were adopted and the law amended accordingly, until the plan was extended to all State employees—excepting, of course, teachers, who were provided for by their own system—and county, city, town, and village employees, provided the local authorities were willing to assume the responsibilities of the system, and the employees desired to enter.

The law under which the system was established was passed in 1920. (Laws of 1920, ch. 741.) The inclusion of employees of local subdivisions was authorized by chapter 591 of the Laws of 1922. The original act has been amended every year, up to and including 1927, and the act of 1922 was amended in 1923, 1924, and 1926.

Scope of System

IN ITS present form, the system covers State, municipal, and county employees of every class and kind, excepting those covered by some other approved system. For State employees, membership was made optional for those in the service at the time of its adoption,

[1] New York. Commission on Pensions. Second report, Mar. 30, 1921. Albany, 1921, p. 5.

and compulsory upon those entering thereafter. City, county, town, and village employees are brought into it only by the action of the local legislative body, i. e., the board of aldermen, the board of supervisors, the town board, or village trustees, as the case may be. When the local legislative body has adopted the system, all employees paid by the municipality are eligible to membership, and must become members during the first year after adoption if they wish to secure credit for the service they have already rendered.

The law as originally enacted called for the classification of employees covered into five groups: Male clerical, administrative, professional, and technical employees engaged upon duties requiring principally mental exertion; (2) female employees coming under the same definition; (3) mechanics and laborers, engaged upon duties requiring principally physical exertion; (4) male employees engaged upon duties in State institutions; (5) female employees engaged upon duties in State institutions. It also permitted the establishment of other groups who might have some peculiarity of mortality or service experience, provided no group should include less than 2,500 persons. Under this provision, as the employees of local bodies have come into the State system, two additional groups have been established, policemen and firemen.

Administration

THE State comptroller is the administrative head of the system, and has power, subject to the limitations of the law, to establish rules and regulations for the transaction of the business of the system and for the custody and control of its funds. He is required to engage the services of an actuary, and may employ such other technical and administrative assistance as may be necessary. A medical board is provided, the State commissioner of health being chairman ex officio, and two other physicians being appointed by the comptroller and holding office at his pleasure. The attorney general of the State is the legal adviser of the system. An actuarial investigation of the system and a valuation of the funds is to be made every five years, the first period beginning with 1921.

Source of Funds

CONTRIBUTIONS from employees.—The employees make regular contributions, varying according to sex, age at entrance, and class of work on which engaged, calculated to provide at age 60 an annuity of one one-hundred-and-fortieth of the final compensation for each year of service after the coming into force of the law. The "final compensation" is the average of the annual payment for the last five years of service. (For rates of contribution, see p. 21.)

Contributions from the State.—The State appropriates annually for the retirement system a normal contribution, sufficient to meet its obligation for benefits accruing during the current year, and a deficiency contribution to provide for liabilities for service rendered before the establishment of the system. The normal rate is defined as a percentage of the compensation of the average new entrant, which, if contributed on the basis of his compensation throughout his entire period of active service, would be sufficient to provide at the time of his retirement or death the total amount of the benefit

or the reserve on any pension payable on his account. On the basis of the first six months' experience of the system, this normal rate was set for the year ending June 30, 1921, at 1.53 per cent of the total pay roll of the employees covered. Since then the rate for normal contribution has gradually risen, owing to the taking on of additional benefits and the inclusion of new workers, especially police and firemen, the cost of whose benefits is always higher than for other workers, until in 1926 it was 3.08577 per cent of the pay roll.

The rate for the deficiency contribution was set at 3.04263 per cent of the pay roll for the period ending June 30, 1921. For the year ending June 30, 1926, it was 2.98920 per cent of the pay roll. Both rates were higher in 1926 than they would otherwise have been, owing to the addition of a so-called ordinary death benefit to the payments made from the fund.

The expenses of carrying on the system are borne by the public authorities, the cost being divided between the State and the separate local bodies whose employees have come under the plan.

Conditions for Retirement

RETIREMENT at 60 is permitted, regardless of the length of service rendered. Originally 70 was set as the age for compulsory retirement, but this was so strongly protested that an amendment was adopted under which the compulsory age was set at 80 for the year ending June 30, 1926, and thereafter it was to decrease annually by one year until in 1936 it should reach 70, where it should remain. Judges, justices, elective officers, and a few others are exempt from the compulsory retirement feature.

Disability retirement is of two kinds, ordinary and accidental disability. Ordinary disability retirement is granted to any employee who becomes incapacitated for the discharge of his duties after 15 years' service. Accidental disability retirement is granted without any requirement as to length of service to an employee incapacitated as the result of an accident sustained in the actual performance of duty.

Retirement Allowances

UPON superannuation, or service retirement, the employee receives an allowance made up of the annuity purchasable by his accumulated contributions, and a pension of the same amount provided by the State, the two together making a total of one-seventieth of his final compensation for each year of service rendered since the adoption of the system. For those who have to their credit service rendered before the system was adopted, the State provides both annuity and pension for each year of such prior service. Not more than 35 years of prior service may be included in the credit given.

Upon ordinary disability retirement the State adds to the annuity purchasable by the employee's accumulated contributions whatever is needed to make up an allowance of 90 per cent of one-seventieth of his final compensation for each year of service rendered. The minimum disability allowance is 25 per cent of the final compensation, and the maximum is 90 per cent of the amount to which the employee would have been entitled had he remained in service until 60 years of age.

An employee retiring under accident disability is entitled to whatever annuity his contributions will purchase and to an allowance from the State amounting to three-fourths of his final compensation.

It will be seen that in superannuation retirement the allowance is determined by two factors, length of service and average salary for the last five years before withdrawal, that in ordinary disability retirement a minimum is introduced which modifies these two factors, and that in retirement for accident disability length of service plays only a minor part in fixing the final allowance. Take, for instance, an employee retiring at 60 after 25 years of service, whose average salary for the last five years has been $1,800; his retirement allowance will be approximately twenty-five seventieths of $1,800, or $643 a year. If he becomes physically or mentally disabled before reaching 60 his retirement allowance can not fall below one-fourth of his average salary for the last five years, or $450; if, as in the first example, he has served 25 years, his allowance will be nine-tenths of twenty-five seventieths of $1,800, or $579. If at any time after entering the service he is disabled by an accident occurring in the performance of his duty, his allowance from the State would be three-fourths of $1,800, if that is the average salary he received during the five years preceding the accident, and in addition he would have whatever annuity his own contributions would purchase, the amount, depending upon the length of time he had been contributing.

Options

UPON retirement, the member has a choice between several options. The standard method is that the retirement allowance should be paid to him in monthly installments throughout his life. Instead of this he may elect to receive only part of the annuity, pension, or complete allowance to which he is entitled, the balance being paid in one of the following methods:

1. If he dies before receiving the full present value of his allowance, as it was at the time of retirement, the difference shall be paid in a lump sum to some selected beneficiary.

2. Upon his death, his annuity, pension, or retirement allowance shall be continued and paid to some selected beneficiary, as long as the latter shall live.

3. This is like option No. 2, except that it is specified that one-half of the annuity, pension, or allowance shall be continued to the beneficiary.

4. Some other form of benefit may be chosen, provided that the actuary of the retirement board shall certify that it is of equivalent actuarial value to the allowance to which the employee is entitled, and that the comptroller shall approve it.

The beneficiary under any option must have an insurable interest in the life of the member.

Additional Benefits

IN ADDITION to the various retirement allowances, the system provides death benefits and a so-called "discontinued service benefit." The ordinary death benefit is payable if a member of the system dies from ordinary causes while in service, after having been

a member for at least one year. In such a case, one-twelfth of his salary for his last year of service multiplied by the years of service rendered, but not to exceed 50 per cent of such salary, is paid to his beneficiary. Thus, if a member receiving $1,800 a year dies after six years of service, his beneficiary receives, in addition to the refund of his contributions, a lump payment of $900. Accident death benefit is payable in the case of a member killed in the performance of his duty. It consists of an allowance to the widow, dependent children, or dependent father or mother of one-half the final average salary, continued as long as the widow remains unmarried or the children are under 18. The accident death benefit was incorporated into the system in 1924, the ordinary death benefit in 1926.

The discontinued service benefit is payable to any member whose services are discontinued through no fault of his own after 20 years of total service, provided he has been in the service of the State for six months continuously just before his retirement, or, in the case of legislative employees and laborers, for at least parts of the last two years. The retired employee receives a retirement allowance, composed, as in the case of a superannuation allowance, of annuity and pension to equal one-seventieth of the final average salary for each year of service. In addition, if he is aged 50 or over, he receives a further pension, equal to one-half the difference between his pension figured as above, and the pension he would receive were he aged 60.

Refunds

IF A member dies, resigns, or is dismissed from the service, except as provided for under the discontinued service benefit, his contributions, with interest at 4 per cent compounded annually, are returned to the member or to his estate.

Provision for Dependents

THIS matter is fully covered by the options allowed at retirement by the ordinary and accident death benefits, and the refunds of contributions in case of death before retirement.

Growth of System—Statistics

THE increase in membership and pay roll of the system has been marked, owing partly to natural growth in the departments originally covered and partly to the extension of the system to take in local employees and groups not at first included. The following figures from the annual reports for 1921 and 1926 show the change:

TABLE 1.—MEMBERSHIP AND PAY ROLL OF NEW YORK STATE EMPLOYEES' RETIREMENT SYSTEM, 1921 AND 1926

Class of member	Membership		Pay roll	
	1921	1926	1921	1926
Present members	4,280	9,229	$8,650,768	$20,965,985
New entrants	220	10,767	326,060	16,857,468
Total	4,500	19,996	8,976,828	37,823,453

The increase has naturally been much greater among the new entrants, i. e., those entering the service after the adoption of the system, than among those already in service at that time, but the latter have increased by over a hundred per cent, owing to the inclusion of new bodies of workers. The figures for 1921 represent the situation at the close of the first six months of the system's operation. At that time the average age of the present members was 43.9 years, of new entrants 28 years, and of the total active force 43.1 years. The total number on the pension roll as of June 30, 1921, was 43, of whom 42 were superannuation retirements and one was the widow of a deceased member. The total allowances paid at that time amounted to $17,507, the average superannuation allowance being $417 and the one allowance to a dependent being $259. On June 30, 1926, the total number on the pension roll was 965, divided as to kind of allowance drawn into 854 superannuation allowances, 61 discontinued service, 43 ordinary disability, 4 accidental disability, and 3 accidental death benefits. The total retirement allowances amounted to $549,664, divided as follows:

Superannuation retirements	$478,636
Discontinued service retirements	46,473
Ordinary disability retirements	18,634
Accidental disability retirements	3,305
Accidental death benefits	2,616

The average retirement allowance was $570, as against $417 at the earlier period, but this average varied materially according to the occupational group to which the retirant belonged, the range being as follows:

Clerical and administrative employees—men	$883
Clerical and administrative employees—women	482
Laborers—men	360
Laborers—women	228
Institutional employees—men	386
Institutional employees—women	321
Firemen	326
Policemen	872

Another indication of the growth of the system is shown by a comparison between the active membership and pensioners and between pay roll and retirement allowances, a comparison made in the following table:

TABLE 2.—RELATION BETWEEN MEMBERSHIP AND BENEFICIARIES OF SYSTEM AND BETWEEN PAY ROLL AND BENEFITS PAID, 1921 TO 1926

Data as of June 30—	Membership of system	Number of beneficiaries	Per cent beneficiaries form of membership	Pay roll of active members	Total allowances	Per cent allowances form of pay roll
1921	4,500	43	0.95	$8,976,828	$17,766	0.2
1922	6,217	137	2.20	11,886,592	77,222	.7
1923	11,679	281	2.41	21,138,331	156,564	.7
1924	13,741	521	3.80	25,102,465	294,770	1.2
1925	17,402	706	4.06	31,869,505	385,471	1.2
1926	19,996	965	4.83	37,823,453	549,664	1.5

The growth, it will be observed, has been somewhat irregular but continuous. The increase both in the number of beneficiaries and in the amounts paid in benefits has been augmented by the addition of new benefits to those provided by the original act.

Finances of System

THE main sources of the financial support of the system are of course the contributions received from the employees and the appropriations made by the State and the local administrative bodies for its support. The rates of contributions required from the employees vary according to sex, age at entrance, and occupational group, as shown in the following table:

TABLE 3.—RATES OF CONTRIBUTION, BASED ON SALARY, TO BE PROVIDED BY EMPLOYEES

Age at entrance	Clerical and administrative employees		Mechanics and laborers	Institutional employees		Firemen	Policemen
	Group 1, male	Group 2, female	Group 3	Group 4, male	Group 5, female	Group 6	Group 7
12 years	0.0421	0.0475	0.0306	0.0358	0.0403	.....	.....
13 years	.0422	.0476	.0310	.0360	.0406	.....	.....
14 years	.0423	.0477	.0314	.0363	.0409	.....	.....
15 years	.0424	.0478	.0318	.0366	.0413	.....	.....
16 years	.0425	.0479	.0322	.0369	.0416	.....	.....
17 years	.0426	.0480	.0327	.0372	.0419	.....	.....
18 years	.0427	.0481	.0332	.0376	.0423	.....	.....
19 years	.0428	.0482	.0337	.0380	.0427	.....	.....
20 years	.0429	.0483	.0342	.0384	.0432	0.0369	0.0366
21 years	.0430	.0484	.0347	.0388	.0437	.0372	.0370
22 years	.0431	.0486	.0352	.0392	.0442	.0375	.0374
23 years	.0433	.0488	.0358	.0397	.0447	.0378	.0378
24 years	.0435	.0490	.0364	.0402	.0452	.0381	.0382
25 years	.0437	.0493	.0370	.0407	.0458	.0385	.0386
26 years	.0439	.0496	.0376	.0412	.0464	.0389	.0390
27 years	.0441	.0499	.0382	.0417	.0470	.0393	.0394
28 years	.0444	.0502	.0388	.0423	.0477	.0397	.0399
29 years	.0448	.0506	.0396	.0429	.0484	.0401	.0404
30 years	.0453	.0511	.0404	.0436	.0492	.0406	.0409
31 years	.0458	.0516	.0412	.0443	.0500	.0411	.0414
32 years	.0463	.0522	.0420	.0450	.0508	.0416	.0420
33 years	.0468	.0528	.0428	.0457	.0516	.0421	.0426
34 years	.0474	.0534	.0436	.0465	.0524	.0427	.0432
35 years	.0480	.0541	.0444	.0473	.0533	.0433	.0438
36 years	.0486	.0548	.0452	.0481	.0542	.0439	.0444
37 years	.0493	.0555	.0460	.0489	.0551	.0445	.0450
38 years	.0501	.0563	.0468	.0497	.0561	.0451	.0456
39 years	.0509	.0572	.0478	.0506	.0571	.0458	.0462
40 years	.0517	.0582	.0488	.0515	.0581	.0465	.0470
41 years	.0525	.0592	.0498	.0524	.0591	.0472	.0477
42 years	.0533	.0602	.0508	.0533	.0601	.0479	.0484
43 years	.0542	.0612	.0518	.0542	.0611	.0486	.0491
44 years	.0551	.0622	.0528	.0551	.0622	.0493	.0498
45 years	.0561	.0633	.0539	.0561	.0633	.0500	.0505
46 years	.0571	.0644	.0550	.0571	.0644	.0507	.0512
47 years	.0581	.0655	.0561	.0581	.0655	.0514	.0519
48 years	.0591	.0666	.0572	.0591	.0666	.0522	.0527
49 years	.0602	.0678	.0584	.0602	.0678	.0530	.0535
50 years	.0613	.0691	.0596	.0613	.0691	.0538	.0543
51 years	.0624	.0704	.0608	.0624	.0704	.0546	.0551
52 years	.0635	.0717	.0620	.0635	.0717	.0554	.0559
53 years	.0647	.0730	.0632	.0647	.0730	.0562	.0567
54 years	.0659	.0743	.0644	.0659	.0743	.0571	.0575
55 years	.0672	.0757	.0656	.0672	.0757	.0580	.0583
56 years	.0685	.0771	.0668	.0685	.0771	.0589	.0591
57 years	.0698	.0785	.0680	.0698	.0785	.0598	.0599
58 years	.0711	.0799	.0693	.0711	.0799	.0607	.0608
59 years	.0724	.0813	.0707	.0724	.0813	.0616	.0617

These rates have produced the following amounts of contributions from the employees:

1921	$235,648	1924	$1,277,474
1922	589,178	1925	1,658,936
1923	739,047	1926	1,919,763

The contributions for the period ended June 30, 1921, represented only six months of the system's operation; thereafter a full year is covered by each amount.

The contributions from the State and local bodies were of two kinds, the normal and the deficiency contributions. At the close of the first six months of operation, it was estimated that the rate for the normal contribution would be 1.53 per cent, and for the deficiency contribution 3.04263 per cent of the total pay roll of the employees covered. The rates have varied from year to year, as new bodies of employees were taken in, or new benefits were added to the system. In 1926 the normal rate was set at 3.08577 per cent and the deficiency rate at 2.98920 of the total pay roll. The amounts appropriated each year do not always correspond to the rates set, and the situation is further complicated by the fact that as employees under an existing system transferred to the State plan, both the assets and the liabilities of their system were taken over bodily. The amounts received from public sources for benefit purposes, however, as given in the annual statements, are as follows:

1921	$50,000	1924	$855,061
1922	360,485	1925	2,015,558
1923	13,907	1926	1,479,011

The contributions for the expenses of administering the system were not included in its published account until 1924. Since then the amounts contributed for this purpose by the State and local bodies were $8,365 in 1924, $43,434 in 1925, and $48,139 in 1926. The amounts paid out for administration expenses were $19,438 in 1924, $46,439 in 1925, and $84,378 in 1926.

The accumulated cash and securities on hand June 30, 1926, amounted to $9,838,768.

New Jersey State Employees' Retirement System

THIS is an actuarial reserve system, organized under a bill signed in March, 1921 (ch. 109, Laws of New Jersey, 1921), which provides for a yearly actuarial valuation of the funds. Contributions began in January, 1922, and pensions were first paid in July, 1922. Membership is compulsory upon all new appointees within one year after their appointment, but optional upon those in State employment when the system was adopted. The plan covers all in the classified civil service, unless expressly excluded by decision of the board of trustees, except those covered by some other system authorized by law.

Administration

THE system is managed by a board of five trustees, made up of the State treasurer, who is an ex officio member, two appointees of the governor, and two employee members of the system who are elected by their fellow members.

Contributions

CONTRIBUTIONS from employees.—The employees pay monthly contributions, deducted from their salaries, sufficient to secure upon retirement at age 60 an annuity amounting to one one-hundred-and-fortieth of their final average compensation for each year of service rendered. The rate of contribution differs according to sex, age at entrance, and character of work, whether manual or clerical. (For rates, see p. 25.)

Contributions from the State.—Under the law, the State makes two contributions regularly, the first to cover the liability assumed by the system on account of the service rendered by members during the year, and the second to cover the liability of the system for prior service, i. e., service rendered before the system was adopted. For the first purpose the State appropriates sufficient each year to provide for all in the system a pension at retirement of one one-hundred-and-fortieth of the final compensation for each year of service. For the year beginning July 1, 1926, the contribution for this purpose was fixed at $140,090, which was 3.01 per cent of the total pay roll. For the second purpose, the law calls for a series of flat payments, sufficient to defray the entire liability by 1946. For the year beginning July 1, 1926, this payment was set at $85,724.

In addition, the State bears the expense of managing the system, appropriating for this purpose each year.

Conditions for Retirement

RETIREMENT is optional at 60 and compulsory at 70, except that an employee of 70 may be retained for a time at the request of the head of his department. No stated period of service is required, but the retirement allowance is affected by the length of time served.

Two forms of disability retirement are permitted: Ordinary disability, permitted at any age after 10 consecutive years of service, and accident disability, due to injury received in the performance of duty, for which no requirement as to age or service is made. There are the usual requirements as to medical certification of disability and periodic examinations.

Retirement Allowances

SERVICE retirement.—A member retiring at or after 60 years of age receives an allowance made up of the annuity purchased by his contributions plus a pension of the same amount from the State's contributions, the two together amounting to one-seventieth of his final compensation for each year of service rendered since 1922. For each year of service credited to his account before 1922 he receives the same proportion of his final compensation, the State bearing the entire cost of this. Upon retirement, members may elect to receive the actuarial equivalent of their annuities and pensions in any of the following forms:

1. Total amount payable in monthly installments, all payments ending at death.

2. Reduced payments during life, with a provision that in case of death before such payments have equaled the present value of pension and annuity at date of retirement, the balance shall be paid to the heirs or assigns.

3. Reduced payments covering two lives, with a provision that at the death of the member the same payments or one-half of such payments shall be continued throughout the life of such other person as the member shall have designated.

4. Such other form of actuarial equivalent as may be certified by the actuary and approved by the retirement board.

Disability retirement.—Upon ordinary disability retirement the member is entitled to the annuity purchased by his own contributions plus a pension of one-fifth of his final compensation; this pension, however, must not exceed four-fifths of the pension to which he would have been entitled had he remained in the service until 60 years of age. For accident disability he receives his annuity, as above, and a pension from the State of two-thirds of his final compensation.

Refunds

IF A member withdraws from the system or dies before reaching pensionable status his accumulated contributions, with interest compounded annually at 4 per cent, are returned to him or to his estate.

Provision for Dependents

IN NORMAL cases no provision is made for dependents except as the retiring member chooses to provide for them by means of the options given. If, however, the member dies from an accident occurring in the actual performance of duty, his contributions are returned with compound interest, and in addition the State gives to his widow until her remarriage or death, or to his minor children until they reach the age of 18, a pension of one-half of the final compensation of the member. If he does not leave either a widow or children under 18 the State pays a cash sum equal to the amount of his final compensation to his estate or designated beneficiary.

Statistics of System

AT THE close of the first full year for which pensions had been payable, 1923, the number of employees covered by the system was 1,951, and the number on the pension roll was 36, of whom 31 were service retirements, 3 were cases of ordinary disability, 1 was a case of accident disability, and 1 was the widow of a member dying from accident incurred in performance of his duty. As of June 30 for successive years, the membership of the system, the total pay roll of the membership, and the number on the retired roll are as follows:

TABLE 4.—MEMBERSHIP OF RETIREMENT SYSTEM, TOTAL PAY ROLL, AND NUMBER ON RETIRED ROLL

Year	Membership	Pay roll	Number on retired roll
1924	2,176	$3,365,382	45
1925	2,527	3,995,202	63
1926	2,883	4,648,655	75

The number of members, of course, is continually fluctuating. In the report for 1926 the following summary of its changes is given:

On June 30, 1926, there had been enrolled 4,286 members, of whom 1,269 had left the service and withdrawn their contributions with interest; 185 had separated from the service, but had not withdrawn their funds, of whom 45 had been suspended from membership on account of the lapse of two years since separation; 89 had been placed on the retirement roll, 14 of whose allowances had ceased on account of death, leaving 75 on the retirement roll, of whom 6 are widows or other beneficiaries of deceased members, and 1 is a minor beneficiary, whose allowance we are holding in trust until he reaches his majority.

Of the 89 who had been retired, 77 had been normal retirements and 12 disability retirements. The average age of those normally retired was 65.8 years, of those retired for disability, 50.5 years, and of all retirants, 62.8 years. The retirement allowances drawn ranged upward to $1,432.08 a year. As no maximum is set on the allowance, its amount being determined by the number of years the retirant has served and the amount of his final compensation, this range will probably vary considerably as time goes on.

TABLE 5.—RATES OF CONTRIBUTION (PER CENT OF SALARY) REQUIRED OF MEMBERS OF THE NEW JERSEY STATE EMPLOYEES' RETIREMENT SYSTEM

Age at entrance	Laborers		Clerks		Age at entrance	Laborers		Clerks	
	Male	Female	Male	Female		Male	Female	Male	Female
15 years	3.53	3.55	4.20	4.43	38 years	4.68	4.89	5.02	5.66
16 years	3.53	3.56	4.16	4.44	39 years	4.77	4.99	5.10	5.75
17 years	3.52	3.58	4.14	4.46	40 years	4.87	5.09	5.18	5.84
18 years	3.51	3.60	4.12	4.48	41 years	4.97	5.19	5.26	5.93
19 years	3.52	3.63	4.11	4.50	42 years	5.07	5.29	5.34	6.03
20 years	3.54	3.66	4.11	4.52	43 years	5.17	5.39	5.43	6.13
21 years	3.56	3.69	4.11	4.55	44 years	5.27	5.50	5.52	6.23
22 years	3.59	3.73	4.12	4.59	45 years	5.37	5.61	5.61	6.33
23 years	3.62	3.77	4.14	4.63	46 years	5.47	5.72	5.70	6.43
24 years	3.66	3.82	4.17	4.67	47 years	5.58	5.83	5.80	6.53
25 years	3.71	3.87	4.21	4.72	48 years	5.69	5.94	5.90	6.64
26 years	3.76	3.92	4.25	4.77	49 years	5.80	6.05	6.00	6.75
27 years	3.81	3.98	4.29	4.83	50 years	5.91	6.17	6.10	6.87
28 years	3.87	4.04	4.34	4.89	51 years	6.04	6.30	6.21	7.01
29 years	3.93	4.11	4.39	4.95	52 years	6.17	6.43	6.33	7.15
30 years	4.00	4.19	4.45	5.01	53 years	6.30	6.57	6.46	7.29
31 years	4.08	4.27	4.51	5.08	54 years	6.43	6.71	6.59	7.43
32 years	4.16	4.35	4.58	5.16	55 years	6.56	6.85	6.72	7.57
33 years	4.24	4.44	4.65	5.24	56 years	6.69	6.99	6.85	7.71
34 years	4.32	4.53	4.72	5.32	57 years	6.82	7.13	6.98	7.85
35 years	4.41	4.62	4.79	5.40	58 years	6.95	7.27	7.11	8.00
36 years	4.50	4.71	4.86	5.48	59 years	7.09	7.41	7.24	8.15
37 years	4.59	4.80	4.94	5.57					

As before mentioned, the State pays two contributions to the pension and benefit funds, one to cover current service and one for service rendered before the system was adopted, and in addition pays

the expense of maintenance. The receipts and disbursements of the scheme, under these conditions, have been as follows:

TABLE 6.—RECEIPTS AND DISBURSEMENTS OF NEW JERSEY STATE EMPLOYEES' RETIREMENT SYSTEM, 1923 TO 1926

Year ending June 30—	Receipts			
	Contributions from employees	Appropriations by State	Other sources	Total
1923 [1]	$112,798.21	$31,000.00	$2,946.00	$146,744.21
1924	163,227.19	92,575.00	13,706.33	269,508.52
1925	189,981.00	185,372.00	22,519.34	397,872.34
1926	227,197.69	156,266.00	44,143.68	427,607.37
Total	693,204.09	465,213.00	83,315.35	1,241,732.44

Year ending June 30—	Disbursements				
	Retirement allowances	Other allowances	Refunds	Administration	Total
1923 [1]	$12,801.08	$1,080.00	$4,295.55	$14,979.32	$32,075.95
1924	18,550.23	888.00	13,011.28	10,665.90	43,307.41
1925	24,091.84		25,416.51	12,276.31	62,672.66
1926	30,826.97		41,514.82	12,460.34	84,802.13
Total	86,270.12	1,968.00	84,238.16	50,381.87	222,858.15

[1] The period covered is from Jan. 1, 1922, to June 30, 1923.

It will be noticed that while expenditures have increased materially with each year covered, the difference between receipts and expenditures has increased even more rapidly, and the assets of the system at the end of 1926 showed a satisfactory condition. The relation between pay roll and benefits was as follows:

TABLE 7.—RELATION BETWEEN BENEFITS AND PAY ROLL OF ACTIVE FORCE

Year ending June 30—	Pay roll of active force	Amount paid in benefits	Percentage benefits form of pay roll
1924	$3,365,382	$19,438	0.58
1925	3,995,202	24,092	.60
1926	4,648,655	30,827	.66

New Jersey State Teachers' Pension and Annuity Fund

PRIOR to 1919 New Jersey had two separate forms of retirement or allowances for teachers. An act of 1903 had established the State teachers' retirement fund, to which every teacher was obliged to contribute, and from which allowances were paid to those obliged to give up their work on account of disability, provided they had taught 20 or more years. In 1914 the State undertook to provide a pension for every teacher who had served for 35 years, 25 of which had been in New Jersey, the amount of the pension being one-half of the average annual salary for the last five years. This was paid from the school funds and the teachers made no contribution toward it. By 1919 the situation was most unsatisfactory. The amounts

contributed to the retirement fund were not sufficient to maintain it on a sound basis, and the contributions of teachers in service were being used to pay the allowances of those who had been retired as disabled. Moreover, a retired teacher might under certain circumstances draw both the disability and the service pension, so that it sometimes happened that a pensioner drew a larger annual allowance than that earned while teaching.

In 1919 the present system was created by amending the school law, provision being made for merging the other two plans and guarding the interests of those who had been pensioned under them. (Ch. 80, Acts of New Jersey, 1919.) The new system became effective in September, 1919. It is an actuarial reserve system, installed on the basis of an actuarial survey and study and provides for periodic reviews and valuations of its condition. The board of trustees is directed to employ an actuary as its technical adviser.

Scope of the System

THE system covers the public-school teachers, the janitorial force and those actively and wholly engaged in the administration of the New Jersey public schools, with the exception of clerks and secretaries of school boards. The membership is divided into two classes—present entrants, who were in the service at the time the system was established, and new entrants, comprising those who have since come in. For present entrants, membership was optional, and they might exercise the option up to December 31, 1923. If they had not chosen to become members by that time, they might come in later, but only on the same footing as new entrants. For those engaged after the adoption of the system, membership is compulsory.

Administration

THE system is managed by a board of seven members. The commissioner of education and the State treasurer are members ex officio, the governor appoints one member, three are elected by the teachers of the State, and one is elected by the other members of the board.

Contributions

THE employees contribute a percentage of their salaries, varying according to sex and to age at entrance, calculated to purchase at age 62 an annuity of one one-hundred-and-fortieth of the final average compensation (last 5 years) for each year of service.

The State makes two contributions toward the retirement allowances, a normal and a deficiency contribution; in addition, it bears the expense of administering the system. The normal contribution is to provide for all employees on retirement a pension amounting to one one-hundred-and-fortieth of the final compensation for each year of service after the adoption of the system. For 1925 and 1926 this contribution amounted to 2.73 per cent of the total pay roll of the membership of the system. The deficiency contribution is to provide for present entrants on retirement a pension of one-seventieth of the final compensation for each year of service rendered before the adoption of the system. At present this contribution amounts to 4.29 per cent of the total pay roll.

Conditions for Retirement

FOR service retirement, or superannuation, the member must have reached the age of 62, unless he is a present entrant, in which case he may retire after 35 years of service, no matter what his age. With this exception, no requirement is made as to years of service. From 1926 onward, retirement at 70 is compulsory, though county superintendents are excepted from this rule until 1928.

Retirement on allowance is permitted for either physical or mental disability after 10 years' service, and for a new entrant the same period of membership in the retirement system. The disability must be such as to incapacitate the sufferer for the performance of duty, and must be certified by physicians selected by the board. Periodic examinations are required, to test the continuance of the disability.

Retirement Allowances

SERVICE or superannuation retirement.—For new entrants the allowance consists of two parts, the annuity bought by the retiring member's contributions and a pension of equal amount provided by the State's contributions, the two together amounting to one-seventieth of the final compensation for each year of service rendered. For those in service before the system was adopted, the State provides in addition an allowance of one-seventieth of the final compensation for each year of such service. In other words, the allowance for service rendered after September 1, 1919, is provided jointly by the State and the teacher, but for service rendered before that date the State provides the full retiring allowance. The minimum retirement allowance for anyone who has taught 20 or more years is $400; no maximum is set.

Any present entrant who was a member of the old teachers' retirement fund is entitled to an additional pension, equal to the actuarial equivalent of his contributions to that fund, without interest.

The disability allowance is fixed at one-seventieth of the average salary of the last five years of service multiplied by the number of years of service, with a minimum of $300 per annum, or 30 per cent of such final average salary, and a maximum of nine-tenths of the amount to which the employee would have been entitled if he had remained in service until reaching the age of 62. If the disabled member belonged to the old teachers' retirement fund he is entitled to an additional allowance equal to the pension which would have been purchasable by his contributions to the old fund; this amount is provided by the State.

Options

UPON retiring, the member has the choice of taking either his regular allowance or one of four options, similar to those provided in the New Jersey State employees' retirement plan. (See p. 23.)

Refunds

IF A member resigns, is dismissed, or dies before qualifying for retirement, his accumulated contributions with compound interest at 3½ per cent are returned to him or to his estate.

Provision for Dependents

THIS matter is covered by the options allowed at retirement. If a member does not take advantage of one of these, his dependents have no claim upon the system in case of his death.

Growth of System—Statistics

THE system is, naturally, almost coextensive with the public-school force of New Jersey, so that its membership is not subject to sudden changes. It shows, however, a steady growth. For three years the membership and the pay roll of the membership were as follows:

Year ending June 30—	Total membership	Total pay roll
1924	16, 787	$29, 627, 872
1925	18, 508	33, 449, 754
1926	19, 830	36, 771, 514

On June 30, 1926, there were on the pension roll 1,062 retired employees, of whom 652 were beneficiaries under the old laws and 410 came solely under the provisions of the new system. Of these latter, 314 were service and 96 were disability retirements. At that date those on the pension roll mounted to 5.4 per cent of the total force. The retirement allowances paid during the year 1925–26 amounted to $910,918.17, which was 2.5 per cent of the pay roll for that year. As of June 30, 1926, the average allowance was $847.76, the average for those retired with the benefits of the earlier laws being $881.93 and for those retired under the new system $793.42. Among the latter, the average allowance for those retired for service is $869.12, and for those retired for disability, $545.83.

Contributions and Funds

THE rates of contribution required of the employees are as follows:

TABLE 8.—RATES OF CONTRIBUTION REQUIRED OF EMPLOYEES

Age at entrance	Percentage of salary required of—		Age at entrance	Percentage of salary required of—	
	Men	Women		Men	Women
20 years	3. 60	3. 91	41 years	4. 33	5. 22
21 years	3. 60	3. 93	42 years	4. 40	5. 32
22 years	3. 60	3. 95	43 years	4. 47	5. 42
23 years	3. 61	3. 98	44 years	4. 54	5. 53
24 years	3. 62	4. 01	45 years	4. 61	5. 63
25 years	3. 62	4. 05	46 years	4. 68	5. 73
26 years	3. 64	4. 09	47 years	4. 76	5. 83
27 years	3. 66	4. 13	48 years	4. 84	5. 93
28 years	3. 69	4. 18	49 years	4. 92	6. 04
29 years	3. 72	4. 25	50 years	5. 01	6. 16
30 years	3. 76	4. 32	51 years	5. 10	6. 27
31 years	3. 78	4. 39	52 years	5. 19	6. 38
32 years	3. 84	4. 46	53 years	5. 28	6. 49
33 years	3. 89	4. 53	54 years	5. 37	6. 60
34 years	3. 93	4. 60	55 years	5. 46	6. 71
35 years	3. 97	4. 68	56 years	5. 56	6. 83
36 years	4. 01	4. 75	57 years	5. 67	6. 94
37 years	4. 07	4. 84	58 years	5. 78	7. 05
38 years	4. 13	4. 94	59 years	5. 89	7. 17
39 years	4. 19	5. 04	60 years	6. 00	7. 29
40 years	4. 26	5. 13	61 years	6. 11	7. 42

The contributions received from employees and the State since the system was inaugurated are as follows:

Year ending June 30—	State appropriations	Employees' contributions
1920	$500, 851. 27	$365, 831. 80
1921 [1]	615, 000. 00	708, 380. 77
1922	740, 000. 00	934, 713. 02
1923	1, 049, 000. 00	1, 170, 371. 74
1924	1, 707, 299. 00	1, 384, 000. 43
1925	1, 200, 000. 00	1, 476, 356. 09
1926	2, 008, 309. 00	1, 572, 759. 27
Total	7, 820, 459. 27	7, 612, 413. 12

The expenses of administration, which are borne by the State, have been as follows:

1919–20	$23, 950. 78	1924–25	$29, 555. 58
1920–21	23, 248. 39	1925–26	37, 521. 89
1921–22	26, 133. 31		
1922–23	26, 217. 90	Total	198, 273. 64
1923–24	31, 645. 79		

In spite of the sudden increase in the expense account for 1926, the cost of administration in that year was only $1.80 per capita of the membership of the system, including annuitants as members.

The amounts paid out in retirement allowances and benefits have risen from $293,607 in 1919–20 to $910,918 in 1925–26. During the same period the amounts withdrawn by those retiring from membership, or paid to the estate of those dying before they reached pensionable status rose from $1,810 to $309,067. For three years the relation between the pay roll and the benefits paid out has varied as follows:

TABLE 9.—PER CENT BENEFITS FORM OF TOTAL PAY ROLL

Year ending June 30—	Pay roll of active force	Amount paid in benefits	Per cent benefits form of pay roll
1924	$29, 627, 872	$815, 929	2. 75
1925	33, 449, 754	836, 921	2. 50
1926	36, 771, 514	910, 918	2. 48

General

THESE three systems were planned along the same lines, but have developed rather differently. Each is a contributory system, in which at first an actuarial relation was established between the contributions required and the benefits promised. Each offered options through which the retiring member might make some provision for his dependents. Each provided for the return of contributions with compound interest to a member withdrawing from the system, and in each the State undertook to provide the full retirement allowance for the years of service rendered before the system was adopted. Each permitted retirement on allowance, without any service require-

[1] In the school year 1920–21 the board of trustees received from the trustees of the teachers' retirement fund cash and securities with a book value of $275,844.44 which were liquidated at a loss of $15,487.74 to meet payments to the annuitants of the teachers' retirement fund as they fell due.

ment, in one case at 62 and in the others at 60, and originally each set 70 as the age for compulsory retirement.

As at first adopted, the most striking difference was in the method of administering the systems. The two New Jersey plans provide for a board of trustees on which the employee members of the system are represented, while under the New York plan the whole administration is intrusted to a State official, with such advisers as may be needed. As the plans have developed, the New York system has diverged from the other two by increasing the number and amount of the benefits offered. The ordinary death benefit and the discontinued-service benefit of the New York system have no parallels in the other plans.

The average age of the beneficiaries under the three systems varies considerably. Taking the New Jersey teachers' system as of June 30, 1925, the average age of those upon the pension roll was 65.3 years; under the New Jersey State employees' system, as of June 30, 1926, the average age was 66.6 years, and under the New York State employees' system, on June 30, 1926, it was 69 years. In general, the average age is brought down by the disability retirants, and this is particularly true of systems including groups incurring special risks, as in the case of police and firemen, which may lead to disablement at an early age. Consequently, the average conceals the number of distinctly elderly pensioners. At the date mentioned above, the beneficiaries of the New Jersey teachers' system numbered 689, and of these, 266 or 38.6 per cent were aged 70 or over, and 50 were 80 or over. Among the 75 living beneficiaries of the New Jersey State system were 22 aged 70 or over and 8 who had reached or passed 80, while among the 960 on the pension rolls of the New York system, for whom ages were reported, 489 or 50.9 per cent were 70 or over, and 61 were 80 or more.

PRODUCTIVITY OF LABOR AND INDUSTRY

The Problem of the Worker Displaced by Machinery [1]

By JAMES J. DAVIS, SECRETARY OF LABOR

EVERY day sees the perfection of some new mechanical miracle that enables one man to do better and more quickly what many men used to do. In the past six years especially, our progress in the lavish use of power and in harnessing that power to high-speed productive machinery has been tremendous. Nothing like it has ever been seen on earth. But what is all this machinery doing for us? What is it doing to us? I think the time is ripe for us to pause and inquire.

Take for example the revolution that has come in the glass industry. For a long time it was thought impossible to turn out machines capable of replacing human skill in the making of glass. Now practically all forms of glassware are being made by machinery, some of the machines being extraordinarily efficient. Thus, in the case of one type of bottle, automatic machinery produces forty-one times as much per worker as the old hand processes, and the machine production requires no skilled glass blowers. In other words, one man now does what 41 men formerly did. What are we doing with the men displaced?

The glass industry is only one of many industries that have been revolutionized in this manner. I began my working life as an iron puddler, and sweated and toiled before the furnace. In the iron and steel industry, too, it was long thought that no machinery could ever take the place of the human touch; yet last week I witnessed the inauguration of a new mechanical sheet-rolling process with six times the capacity of the former method.

Like the bottle machine, this new mechanical wonder in steel will abolish jobs. It dispenses with men, many of whom have put in years acquiring their skill, and take a natural pride in that skill. We must, I think, soon begin to think a little less of our wonderful machines and a little more of our wonderful American workers, the alternative being that we may have discontent on our hands. This amazing industrial organization that we have built up in our country must not be allowed to get in its own way. If we are to go on prospering, we must give some thought to this matter.

Understand me, I am not an alarmist. If you take the long view, there is nothing in sight to give us grave concern. I am no more concerned over the men once needed to blow bottles than I am over the seamstresses that we once were afraid would starve when the sewing machine came in. We know that thousands more seamstresses than before earn a living that would be impossible with-

[1] From speech delivered at the Cleveland Industrial Exposition, Cleveland, Ohio, Aug. 6, 1927.

out the sewing machine. In the end, every device that lightens human toil and increases production is a boon to humanity. It is only the period of adjustment, when machines turn workers out of their old jobs into new ones, that we must learn to handle them so as to reduce distress to the minimum.

To-day when new machines are coming in more rapidly than ever, that period of adjustment becomes a more serious matter. Twenty years ago we thought we had reached the peak in mass production. Now we know that we had hardly begun. The Bureau of Labor Statistics in the Department of Labor has lately studied 11 typical industries and has found that since 1914 their average production has been increased 68 per cent.[2] In the past 7 years American productivity as a whole has increased about 40 per cent. If our productivity had remained what it was even in the year 1919, the country would need about 140 men to do the work formerly done by a hundred. The growth of our population in numbers and consuming power would have brought this about. But even with the 10,000,000 more consumers we now have, our factories are supplying the Nation's needs with 7 per cent fewer workers. This is something which should give us thought.

In the long run new types of industries have always absorbed the workers displaced by machinery, but of late we have been developing new machinery at a faster rate than we have been developing new industries. Inventive genius needs to turn itself in this direction.

I tremble to think what a state we might be in as a result of this development of machinery without the bars we have lately set up against wholesale immigration. If we had gone on admitting the tide of aliens that formerly poured in here at the rate of a million or more a year, and this at a time when new machinery was constantly eating into the number of jobs, we might have had on our hands something much more serious than the quiet industrial revolution now in progress.

Fortunately we were wise in time, and the industrial situation before us is, as I say, a cause only for thought, not alarm.

Nevertheless I submit that it does call for thought. There seems to be no limit to our national efficiency. At the same time we must ask ourselves, is automatic machinery, driven by limitless power going to leave on our hands a state of chronic and increasing unemployment? Is the machine that turns out wealth also to create poverty? Is it giving us a permanent jobless class? Is prosperity going to double back on itself and bring us social distress?

This is not altogether a social problem either. It is also a business problem. The jobless and penniless man and his family are not proper consumers. They add little or nothing to the sum of national demand that makes business and keeps the country at work. The jobless add nothing to national wealth. Humanly and industrially they give us nothing but the cost of their keep and the sight of their distress. We can not afford to sit by and watch the slow growth of a class like that.

It seems to me time for a new type of inventor—the kind of inventor every good employer can be, and will want to be if he is wise. With all this genius for inventing mechanical devices we need to invent

[2] This is an unweighted average of the per cent increases of the 11 industries.

new ways of utilizing the man displaced by our new machines. With invention of every labor-saving machine should come invention of ways of using the man whose labor is saved. There is no other way; otherwise our new machinery does not "save" labor, but wastes it.

We saved ourselves from the millions of aliens who would have poured in here when business was especially slack and unemployment high. In the old days we used to admit these aliens by the shipload, regardless of the state of the times. I remember that in my own days in the mill when a new machine was put into operation or a new plant was to be opened, aliens were always brought in to man it. When we older hands were through there was no place for us to go. No one had a thought for the man turned out of a job. He went his way forgotten.

With a certain amount of unemployment even now to trouble us, think of the nation-wide distress in 1920–21 with the bars down and aliens flooding in, and nowhere near enough jobs to go round. Our duty, as we saw it, was to care as best we could for the workers already here, native or foreign born. Restrictive immigration enabled us to do so, and thus work out of a situation bad enough as it was. Now, just as we were wise in season in this matter of immigration, so we must be wise in sparing our people to-day as much as possible from the curse of unemployment as a result of the ceaseless invention of machinery. It is a thought to be entertained, whatever the pride we naturally take in our progress in other directions.

Please understand me, there must be no limits to that progress. We must not in any way restrict new means of pouring out wealth. Labor must not loaf on the job or cut down output. Capital must not, after building up its great industrial organization shut down its mills. That way lies dry rot. We must ever go on, fearlessly scrapping old methods and old machines as fast as we find them obsolete. But we can not afford the human and business waste of scrapping men. In former times the man suddenly displaced by a machine was left to his fate. The new invention we need is a way of caring for this fellow made temporarily jobless. In this enlightened day we want him to go on earning, buying, consuming, adding his bit to the national wealth in the form of product and wages. When a man loses a job, we all lose something. Our national efficiency is not what it should be unless we stop that loss.

As I look into the future, far beyond this occasional distress of the present, I see a world made better by the very machines invented to-day. I see the machine becoming the real slave of man that it was meant to be. I see it lengthening the useful lives of men. To-day we are scrapping men at the age of 45 or 50 because we think their skill is slipping. To-morrow the machine will supply the skill, and a man of 70 may operate it as well as one of 20.

Machinery has built our enormous cities of to-day. To-morrow will see the highways broadened for better traffic, and the air thickened with new methods of transportation. When that has com this intense centralization of industry will be unnecessary. Th worker and the farmer will live side by side, to the advantage and better understanding of both. Machinery will do the work, and men will have time to live. As they have time to live, they will cultivate more and more the things worth living for. We are going to be masters of a far different and better life.

Productivity of Labor of Locomotive Firemen

THE Brotherhood of Locomotive Firemen and Enginemen, in an exhibit (No. 6) introduced in the 1927 arbitration proceedings as to wages on the southeastern railroads, discusses the productivity of locomotive firemen on the powerful engines in use to-day. The following is summarized from that exhibit:

The development in size and power of locomotive engines during the last two decades has brought about an increase in the labor and productivity of locomotive firemen. The job of the fireman is to shovel enough coal to keep a full head of steam, and the larger the locomotive the harder becomes his work, because of the greater quantity of coal that must be shoveled. On some of the modern powerful engines the work has become so strenuous that mechanical stokers have been installed. These mechanical stokers have reduced the physical labor of the fireman, but the enormous and complicated modern locomotives have necessitated increased mechanical skill on his part.

The use of more powerful engines has resulted in greater productivity. As they pull larger trainloads, fewer trains have to be run to handle a given traffic. The exhibit quotes figures from the Interstate Commerce Commission showing that in the last 20 years, with an increase in the number of locomotives of 55 per cent, revenue tons per train have increased 113 per cent and ton-miles 141 per cent, while in the last 10 years, with only 2½ per cent more engines, there has been an increase of 38 per cent in revenue tons per train and of 50 per cent in ton-miles.

Another striking illustration of the effect of the use of locomotives of greater tractive power is the increase of gross ton-miles per train hour (and cars per train). With the resulting decrease in the number of trains comes of course a reduction in the number of engines and a greater productivity per hour of service for each fireman. It is estimated that in the last 20 years gross ton-miles per train hour have increased 135 per cent, and in the last six years they have increased 39 per cent. This increase taken with the increase in revenue tons per train and in ton-miles indicate that each train hour of labor of a freight fireman produced in 1926 more than twice the amount of transportation service that it did 20 years before.

The figures in the table following show how the number of locomotives, the average tractive power, the revenue tons per train, the ton-miles, the gross ton-miles per train hour, and the cars per train have increased during the past 20 years.

INCREASE IN PRODUCTIVITY ON STEAM RAILWAYS IN THE UNITED STATES EFFECTED BY THE INTRODUCTION OF MORE POWERFUL LOCOMOTIVES, 1903 TO 1925

Year	Steam railways [1]				Year	Class I steam railways [2]	
	Number of locomotives	Average tractive power	Revenue tons per train	Ton-miles		Gross ton-miles per train hour	Cars per train
1903	43,871	21,781	310.54	173,221,279,000	1906	8,810	
1907	55,388	25,781	357.35	236,601,390,000	1916	12,490	
1910	60,019	27,282	380.38	255,016,910,000	1920	14,877	
1911	62,463	28,291	383.10	253,783,702,000	1921	16,555	36.6
1912	63,463	29,049	406.76	264,080,745,000	1922	16,188	38.4
1913	65,597	30,258	445.43	301,730,291,000	1923	16,764	38.4
1915	66,502	31,501	476.13	277,134,816,000	1924	18,257	39.9
1918	67,936	34,995	620.68	408,778,061,000	1925	19,679	41.7
1919	68,977	35,789	622.51	367,161,371,000	1926	20,705	43.8
1920	68,942	36,365	639.03	413,698,749,000			45.2
1921	69,122	36,935	566.74	309,533,365,000	Per cent of increase:		
1925	68,092	40,666	662.53	417,418,464,000	1906 to 1926	135	
Per cent of increase:					1920 to 1926	39	23.5
1903 to 1925	55.0	87	113	141			
1915 to 1925	2.5	29	38	50			

[1] Interstate Commerce Commission. Statistics of Railways in the United States, 1925, Statement No. 53.
[2] Figures for 1906 and 1916 estimated by Samuel O. Dunn, editor of the Railway Age, for 1920 to 1926 from Fortieth Annual Report of the Interstate Commerce Commission (p. 29).

In the southern district on Class I roads, with an increase of 11 per cent in the number of locomotives from 1915 to 1925 there has been an increase of 51 per cent in revenue tons per train and of 95 per cent in ton-miles, and from 1921 to 1926 of 27.4 per cent in gross ton-miles per train hour.

The wages of firemen during the last 20 years, the exhibit states, have more than doubled, but the increase in their purchasing power in 1913 dollars is only 10 per cent. The following table, taken from the exhibit, gives the dominant daily wage rate of firemen in specified years in this period and the purchasing power thereof in 1913 dollars:

DAILY WAGE RATES OF FIREMEN AND PURCHASING POWER OF THEIR WAGE IN SPECIFIED YEARS, 1903 TO 1926

Year	Dominant daily wage rate of freight firemen [1]	Purchasing power of wage in 1913 dollars [2]	Year	Dominant daily wage rate of freight firemen [1]	Purchasing power of wage in 1913 dollars [2]
1903	$2.23	$2.97	1919	$4.96	$2.49
1907	2.55	3.11	1920	6.00	2.99
1910	2.685	2.90	1921	5.36	3.08
1911	2.85	3.11	1925	5.72	3.21
1912	3.10	3.16	1926	5.72	3.26
1913	3.10	3.10			
1918	4.16	2.39	Per cent of increase, 1903 to 1926	157	10

[1] Refers primarily to southern district, although representative of the entire country beginning with 1919, as previous to 1919 and for 1925 and 1926 the rates are from the Norfolk & Western Railway schedules of the specified year and from 1919 to 1921 the rates are from decisions of U. S. Railroad Administration and U. S. Railroad Labor Board.
[2] Based on retail food prices for years prior to 1913 (Statistical Abstract of the United States, Table 321) and on cost of living for subsequent years (Labor Review, February, 1927, p. 181).

Production and Per Capita Output in Japanese Coal Mines, 1914 to 1925

THE following table on coal production in Japan, 1914 to 1925, is compiled from the Financial and Economic Annual issued by the department of finance of that country for 1925 (pp. 63, 64) and for 1926 (pp. 71, 72).

In the year 1925 the production of coal exceeded that of any of the 12 years listed, while the average production per man per day in 1925 of 0.57 ton (of 2,000 lbs.) is also the highest record for the period covered.

NUMBER OF WORKERS, NUMBER OF DAYS WORKED, TOTAL PRODUCTION AND PRODUCTION PER MAN PER DAY IN JAPANESE COAL MINES, 1914 TO 1925

Year	Number of employees on June 30	Number of days worked	Average number of days per man	Production (tons of 2,000 pounds)	
				Total	Average per man per day
1914	182,637	44,106,992	242	24,574,036	0.56
1915	193,142	42,386,897	219	22,586,950	.53
1916	197,907	47,238,338	239	25,244,412	.53
1917	250,144	57,679,769	231	29,058,193	.50
1918	287,159	69,193,103	241	30,896,835	.45
1919	348,240	83,860,075	241	34,470,126	.41
1920	342,873	81,129,349	237	32,237,187	.40
1921	267,614	63,751,499	238	28,902,986	.45
1922	[1] 249,022	[1] 60,111,505	[2]	30,535,596	[2]
1923	278,771	60,063,425	215	31,910,284	.53
1924	251,069	59,720,700	238	33,191,163	.56
1925	252,898	60,368,322	239	34,677,713	.57

[1] Exclusive figures of the prefecture of Kanagawa.
[2] Not computed, as number of employees was not reported for the entire country.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS

Handbook of Labor Statistics

THE Handbook of Labor Statistics just issued by the United States Bureau of Labor Statistics brings together in convenient form digests of all important material regarding labor conditions in the United States published by the bureau during recent years. The aim has been to include a maximum number of subjects and to give the latest available information for each of them, provided the information is of sufficiently late date to be significant. Although the volume contains very little material that has not already been published by the bureau, most of it has been completely rearranged and rewritten in order better to adapt it to the plan of making this publication essentially a work of reference.

As far as possible the subjects are taken up in alphabetical order. A section on apprenticeship, which briefly reviews the present status of apprenticeship in the United States, is followed by one on arbitration and conciliation, which gives among other data a detailed analysis of the important railroad labor act of 1926 and digests of the more important arbitration awards of the past year.

The subject of child labor is reviewed both from the economic and legal aspects, principal dependence being placed on the extensive studies of children in industry made by the United States Children's Bureau. Convict labor is given several pages, including a summary of the results of the investigation made in 1923 by the Bureau of Labor Statistics. The material in the section on cooperation is from the recent survey by the bureau of the extent and activities of cooperative organization, other than agricultural, in the United States.

The sections on cost of living, employment, and also prices, summarize the current studies of the bureau over a period of years up to the end of 1926. Special emphasis is placed upon industrial accidents and industrial diseases. The bureau has covered both of these subjects in numerous publications, but no attempt has been made until now to bring such material into compact form.

The present status of workmen's compensation in the United States, as well as other forms of social insurance little developed in this country, are briefly reviewed. A section on labor organizations gives a list, with a short account of the organization and membership, of every trade-union in the United States; and a section on productivity of labor brings together the results of the recent studies by the bureau in this very important field.

The material presented on wages and hours of labor in American industry should be of particular usefulness. The matter of wages is, of course, of primary interest to the workers and ever since its organization the Bureau of Labor Statistics has devoted a very large part of its time and resources to this subject. Its publications along

this line have been very frequent and very comprehensive, but summaries of these studies, now presented in the handbook, represent the first effort to bring together this large volume of material in convenient and uniform shape.

Some of the other general topics included in the handbook are housing, immigration and emigration, legal aid, minimum wage, the negro in industry, physical examinations of workers, strikes and lockouts, labor turnover, and women in industry.

Examination of this volume indicates both the strength and weakness of the labor statistics available for the United States. Certain subjects of primary interest are covered with reasonable adequacy either by the Bureau of Labor Statistics or by other official agencies. There remain, however, other subjects of possibly equal interest which either are not covered at all or are covered very inadequately, and upon which the available information is very scanty. The resources of the Bureau of Labor Statistics do not permit extension of its activities into these fields, nor indeed even to make such frequent studies as would be desirable of certain subjects which it does cover from time to time. For instance, wage surveys of the more important industries of the country should be made annually. The best the bureau has been able to do, however, is to make an annual survey of union wages, biennial surveys of a few large industries, and occasional surveys, at irregular intervals, of other industries.

Industrial Relations in the United States [1]

By H. B. Butler, C. B., Deputy Director of the International Labor Office

THE problem of industrial relations does not command any universal solution. It presents itself in different forms, which vary with economic circumstances, social tradition, and national psychology. The conditions under which it has developed in America diverge widely from those which obtain in European countries. Indeed, a good deal of prejudice has been created in European minds against American methods, sometimes owing to their misrepresentation, sometimes owing to their being advocated as applicable without modification to European conditions. Only after studying them objectively in relation to the peculiar circumstances of American industry, which have fashioned them, does it become profitable to consider how far they can be usefully adapted to the different environment which exists in older countries.

At the same time the magnitude and prosperity of American industry are so great that the elements which have contributed to its success can not be a matter of indifference to any other industrial community. Some of those elements are no doubt derived from the special advantages which the United States enjoys in its great home market, its immense natural resources, its abundance of capital and in its population, which is still far short of the country's capacity. But there are other elements which are not American peculiarities

[1] Reprint of the concluding chapter of a recent report of the same title published by the International Labor Office as No. 27 of its Studies and Reports, series A (industrial relations).

and which are capable of being reproduced in other surroundings. Even in the sphere of industrial relations, which, as has been said, must be largely shaped in a national mold, some general principles of more or less universal validity may perhaps be found, provided that they are applied with due discrimination.

In the United States relations between employers and employed have passed through a period of conflict which finds its counterpart in the history of most industrial countries. At the present time a transitional stage seems to have been reached, in which the creed of combat is being challenged by a new doctrine of cooperation, which has found considerable support both among employers and workers. The fact that the American tradition is less disciplined and uniform than that of older countries allows of experiments being tried with more freedom and more disregard for the past than is usually possible elsewhere. But it does not follow that their results can have no interest for outsiders on that account. In spite of all differences in national or continental mentality, human nature everywhere has fundamental characteristics in common which generally outweigh them. The study of industrial relations is nothing but the study of human nature in the setting of modern industry, and that setting is largely similar everywhere. It is a subject to which comparatively little attention has been devoted, despite its great and growing importance to the general welfare of society in the present industrial age. The attempt which is now being made in America to raise it to the dignity of a science comparable to the study of politics or economics is in itself both significant and important. It may therefore be worth while to draw attention to some of the more salient points which seem to be of general interest.

First among them must certainly be placed the prevalence of discussion, the exchange of information, the widespread public concern with industrial relations. They are felt to be a matter of national importance upon which the well-being and progress of the whole community largely depend. The American literature on the subject during the last 10 years probably exceeds that of the rest of the world put together. This public debate has stimulated and educated both employers and trade-unions to reexamine their past policies and practices, and to justify them not merely to themselves but to the country at large. There is in most countries a tradition in favor of reticence, if not of secrecy, about industrial affairs. The American method seems to show that, in spite of the exaggerations and overstatements which it at times provokes, publicity is on the whole a healthy and quickening influence

Secondly, the voluntary assumption by employers of heavy social charges is remarkable, whatever its motive. It suggests that in the absence of social insurance provided by the State, the protection of the worker against industrial risks is felt to be a necessary preliminary to good industrial relations. In 1925 there were 135 railway companies giving pensions to their employees on retirement at a cost of $18,500,000, more than double the figure of 1920. If the total cost of the charges which are being voluntarily carried by employers could be calculated, it would be found to amount to an enormous sum. On the other hand, the durability and soundness of these schemes are not proved beyond doubt. They do not offer the same

measure of security to the workers that is afforded by State insurance, and there can be no certainty that they can, or will be, continued in a period of depression. Some companies have already abandoned their schemes, while others might easily be forced to do so, either because they are not secured on a sound actuarial basis or because the burden involved may become too heavy when trade slackens. Moreover, the smaller establishments, which after all represent a very large proportion of American industry, can not as a rule afford to cover their employees. The voluntary insurance system therefore, though valuable and important in its effects upon industrial relations, can not be regarded as furnishing a complete or certain solution of the problem of giving the worker protection against industrial risks. Once established, moreover, it can not be dropped or be allowed to fail without seriously prejudicing the good feeling between employer and employed which it was designed to promote.

The third point which may be singled out is the attempt to restore contact and cooperation between employers and employees. That this is a principle of cardinal value is scarcely open to dispute, but its application is exceedingly difficult under modern conditions. To revive the personal relationship which may have existed in a more primitive stage of industrial society is impossible in an era when the employees of a single enterprise may be numbered not in tens but in tens of thousands. The only method is through some form of representation. The essence of all democratic systems is that the election of representatives shall be free and unfettered. Moreover, no new method which ignores the past is likely to be permanently acceptable. The future government of industry can only be evolved out of its existing institutions, just as political democracy was in the first instance developed by the infusion of a new spirit into old organs of government and by their gradual transformation into new uses and the exercise of new powers. It is on these grounds that the stability of works councils functioning independently of the existing machinery of collective bargaining is perhaps open to question in America. If workers still feel the need of association, not merely with their colleagues in the factory, but with the whole of their fellow workers in the industry; or, in other words, if they still feel the need of trade-unionism, it can not be affirmed with any certainty that a system which ignores trade-unionism, and in some cases is deliberately intended to eradicate it, will ultimately command their confidence and assent.

On the other hand, the incorporation of representative bodies in the works within the general system of collective bargaining is not likely to encounter any serious opposition from the workers based on the sentiment that the traditions in which many of them have been bred are being undermined. The experiments in cooperation with trade-unions which are now taking place in the United States are therefore of peculiar interest, not so much on account of the machinery which is being devised in order to effect it, as on account of the new attitude which is implied on the part both of employers and trade-union leaders. Where such experiments have been initiated, both have openly or tacitly renounced the idea that their interests are in necessary and permanent conflict in favor of the notion that they are largely identical. The present leaders of the American Federation

of Labor have definitely accepted the doctrine that greater production is as much in the interest of the worker as of the employer, provided that the former has an effective voice in determining its conditions and in the allocation of its proceeds. On their side large numbers of the employers have accepted the view that it is to their own advantage to afford as good wages and conditions as the industry will bear, seeing that only on this basis can unstinted collaboration with their workpeople be founded, without which the maximum of efficiency is unattainable. Moreover, those who practice cooperation with the unions have recognized that the latter are capable of playing an important and constructive part in the machinery of production.

Each side is no doubt being considerably impressed by the evidence of a modified attitude in the other party. Employers are much more inclined than in the past to revise their opinion of trade-unionism, while for their part the unions are disposed to answer an appeal for cooperation based on the recognition of their partnership in production. It is significant, for example, that Mr. J. D. Rockefeller, jr., whose enterprises have hitherto been conducted on the "open-shop" principle and have been the scene of much conflict with unionism in the past, recently held out the olive branch. After stating [2] that "both employers and employees are beginning to realize that in the application of the principle of representation in industry a way of getting together again is offered," he asked what form of industrial representation would ultimately prevail, and continued: "More probably the instrumentality of that larger good will be a composite of many plans now being utilized and developed. If the labor movement, with its important contribution of collective bargaining, with its history of achievement and all of its traditions that are worthiest of perpetuation, will do its share in outlawing industrial warfare, substituting partnership therefor; if those in its ranks who have long recognized the fallacy and harmfulness of the doctrine that the less work a man does in a day, the more days' work he will have, are all able to convince their associates that to secure the largest possible production is the best way to advance their own interests and to maintain their self-respect; if more men of broad vision and high purpose respond to the opportunity for constructive leadership which labor unionism offers, it may be that the trade-union movement will enjoy the glory and honor of ushering in industrial peace."

In reply to this pronouncement the American Federation of Labor reaffirmed its cooperative policy in unequivocal terms as follows: "Partnership, as Mr. Rockefeller very truly says, must be the basis of constructive relations between employers and employed. The essence of partnership is mutuality of confidence, responsibilities and duties. Either member of the partnership may be handicapped in what he may do by the shortcomings of the other. So the trade-union movement is prevented from rendering maximum service when employers do not enter into agreements with union representatives so that there may be clearly defined rights and conditions of employment which beget confidence, safeguarded by an agency controlled solely by the workers. Upon such a foundation may be developed the technique and agencies of cooperation. Employers reserve the

[2] Speech at Cleveland, Ohio, Apr. 7, 1927. (Industrial and Labor Information, Vol. XXII, No. 11, p. 433.)

right to decide management policies, and so long as they refuse to negotiate with unions, unions are forced to militant tactics. So long as management refuses workers a right to a voice in deciding conditions of work through their own representatives, workers are forced to protect themselves against unfair impositions as best they can and the spirit of retaliation is fostered. The 'worthiest traditions' of trade-unionism find expression only when employers contribute to the development of conditions which make them possible. The American Federation of Labor has declared that the materials of increased productivity are essential to sustained increases in standards of living and that the union holds itself ready to do its part in working out better methods and plans for production. Where employers are ready to make cooperation possible, trade-unionists are ready to do their part."[3]

Even more striking, perhaps, is the hope of the future outlined by Mr. Owen D. Young, chairman of the General Electric Co., one of the largest corporations in the United States, in an address given at the opening of the new buildings of the Harvard Business School, from which the following passages may be quoted: "Here in America we have raised the standard of political equality. Shall we be able to add to that full equality in economic opportunity? No man is wholly free until he is both politically and economically free. Perhaps some day we may be able to organize human beings engaged in a particular undertaking so that they will truly be the employer buying capital as a commodity in the market at the lowest price. I hope the day may come when these great business organizations will truly belong to the men who are giving their lives and their efforts to them, I care not in what capacity. Then they will use capital truly as a tool, and they will all be interested in working it to the highest economic advantage. Then men will be free in cooperative undertakings and subject only to the same limitations and chances as men in individual business. Then we shall have no hired men. That objective may be a long way off, but it is worthy to engage the research and efforts of the Harvard School of Business."[4]

Such utterances must not be taken as representing the general opinion of American industrialists, but as indicating the spirit which is being promoted by the experiments in collaboration between capital and labor. As has been frequently emphasized throughout this study, the enterprises in which such experiments are being tried are as yet comparatively small in number. They represent the advance guard of American industry, of which the main body still proceeds on more familiar lines. But it is to the pioneers that one naturally looks to see the line which the army may ultimately follow. If the American pioneers can confirm and extend their success in bringing about real partnership between employers and workers, their example will ultimately spread to the whole mass, with the result that the United States will have secured a further guaranty of supreme importance for the maintenance of its material prosperity and for the progress of its social welfare. Any such consummation is not likely to be achieved in any very near future. Indeed, its achievement at all is still entirely uncertain. But when every

[3] American Federationist, May, 1927, pp. 529-530.
[4] New York Times, June 5, 1927; reprinted in Industrial and Labor Information, Vol. XXII, No. 13, p. 511.

allowance is made for doubts and difficulties, the promise is sufficiently substantial to make it wise to follow its destiny. It may be that the present experiments in the direction of a better industrial order will prove to be barren. If so, they are bound to be succeeded by others which will take account of the reasons for their failure, for the problem which they are seeking to solve is one that can not be shelved or shirked if industrial civilization is to be preserved and developed.

Regulation of Industrial Home Work in Pennsylvania

LABOR AND INDUSTRY, the publication of the Pennsylvania Department of Labor and Industry, contains in its issue for March, 1927, an account of the administration of the regulations concerning industrial work given out to be done at home.

Home work is a common practice in Pennsylvania, there being 910 employers holding a permit to give out such work on November 1, 1926, and the number of workers listed as employed, 11,883. The most important single home work industry is the manufacture of men's clothing, in which are found 25 per cent of the licensed employers and 20 per cent of all the home workers in the State. The needlework trades and work on tobacco are the next in importance.

Geographically, the Philadelphia district is the most important in regard to home work, 6,514, or 54.8 per cent of the workers, being located here. The Lancaster district comes next, with 4,261, and 1,108 are scattered through other districts. Sixty employers have licenses to send work out of the State, and their employees are not included in this list. The number of home workers employed by a single manufacturer varies from less than 5 to over 200.

Methods of Regulation

TWO methods of regulation have been employed: First, the employer is interviewed to assist him in developing the necessary organization to bring his distribution of home work up to legal standards; and, second, agents of the Bureau of Women and Children investigate a representative number of homes to see whether the work is being carried on under legal conditions.

Of the 686 employers interviewed 470, or 68.5 per cent, agreed to work out plans of supervising their home work. The active cooperation of the employers in industries where the work is unskilled and therefore most liable to present special dangers in illegal employment of children was most gratifying. Every employer giving out home work on tags agreed to supervise the work. A large proportion of employers giving out knit goods, tobacco, art needlework, and miscellaneous clothing, also promised to inaugurate some plan of supervision. In men's, women's, and children's clothing industries the establishing of systems of supervision was not so general. In many cases the actual owner of material distributing his work to a contractor, prefers to shift the responsibility of supervision on to the contractor. Clothing sometimes passes through two or three establishments before it finally reaches the home worker. This does not lessen the need for supervision of the homes in which the work is done, but it does highly complicate the whole problem of developing a plan of supervision.

Some employers meet the situation by putting on a full-time supervisor of home work, others have members of the firm, who

have other duties as well, visit the homes and instruct the home workers, and still others instruct the workers when they come to the factory for the work. Many have printed instructions calling attention to the regulations, and in some cases home workers have been required to sign a statement that all work would be done in accordance with these rules.

The visits of the agents of the bureau offer opportunity for a careful check upon the way in which the rules are observed, and reports are made to the employer. If the rules were not being obeyed, the employer was given a chance to correct the violations before the bureau took action. If a recheck showed that the law was being persistently violated, the employer was requested to cease sending work to that home. The effect of the supervision thus exercised is marked.

The illegal employment of children has always been the evil inherent in industrial home work. In a study made in 1924 before the present regulations went into effect, it was found that in 50 per cent of the 1,243 homes investigated which had children under 16 years of age, children were working illegally on home work. Of the 1,763 homes investigated during this first year of the administration of the home work regulations, 1,202 had children under 16 years of age. Children were found illegally employed in 23.5 per cent of these homes. Serious as this finding is, it shows a marked decrease since 1924 in the proportion of homes having violations of the child labor law. In 1924, in one-half of the homes with children, these children were permitted to work illegally; in 1926 less than one-fourth of the homes with children were permitting them to work illegally.

It is suggested that the reduction in the illegal employment of children may be even greater than is shown, since many of the visits of investigation were made at about the time the employer's plan of supervision was being inaugurated. In some cases where a group of homes was visited a second or third time, the proportion of violations was found to be materially reduced.

In conclusion, attention is called to the difficulty of enforcing regulations concerning work not done in the factory proper. Observance of the law is largely a matter of education, in which employers, workers, and the department all have their part to play. Progress is naturally slow.

One year's administration of the industrial home work regulations has not solved the problem. Many employers giving out work to be done in Pennsylvania homes unquestionably have not yet been reached and licensed, By the same token, many home-working families are yet unknown. The first year of regulation has shown an appreciable change for the better in the conditions under which home work is done and the Bureau of Women and Children believes that with the present regulations and the continued cooperation of the employers that future violations of the law can be reduced to a minimum.

Conference to Promote Industrial Prosperity of New England

IN JULY, 1925, the governors of the six New England States appointed a joint committee of 18, three members from each State, "to devise some means whereby comprehensive views of problems common to New England States could be developed and maintained," and the efforts of existing organizations "coordinated for the promotion of the growth and prosperity of New England." This com-

mittee originated the New England Conference. A description of the organization of the conference and its councils, and of the work being done by its executive body, the New England Council, is given in the June, 1927, issue of the Providence Magazine, published by the Providence Chamber of Commerce.

The New England Conference and New England Council are said to represent the most interesting and elaborate effort that is now being made in the United States for purely regional development along economic and social lines. Membership in the conference is open to all agricultural, commercial, and industrial organizations in New England, each member organization being entitled to three delegates. At the annual meeting each State delegation chooses the members of a State council consisting of 12 members who serve two years, one-half retiring annually. These State council members constitute the 72 members of the New England Council. The officers of the conference are the president, treasurer, secretary, executive vice president, and six vice presidents. The six vice presidents are the chairmen of the State councils, each State council having its own organization. The other officers are chosen by the New England Council, the president for one year and the remainder for indeterminate periods. None of the several State governments has any official connection with these bodies, but various State officials have cooperated in the consideration or execution of special problems. Although the conference is made up of representatives of business organizations, no salaried officer or employee is permitted to be a delegate.

About 1,200 business men, representing practically every important phase of industry, commerce, and agriculture in the New England States, were in attendance at the second conference, held at Hartford.

The New England Council is making a comprehensive study of the power situation of New England; it has undertaken to develop the region's recreational resources; and directly or indirectly it has endeavored "to hold industries that were upon the point of leaving, to bring in outside industries and develop new ones, to secure a better diversification of industries and full-time operation of factories and to pave the way for improved equipment."

The need of improved equipment in the mills was evidenced by an examination of the machinery in a mill which is said to be typical of several in its community. It was reported "that the average age of all machinery in the plant is 23½ years. More than 50 per cent of the looms are over 25 years old; 75 per cent of the mules are 28 years old or more; 50 per cent of the cards were more than 22 years old; 90 per cent of the spinning frames 25 years old or more, and 100 per cent of the warpers more than 35 years old."

Conditions in Indian Cotton Mills

IN JUNE, 1926, the Indian Government, in response to an appeal for higher protective duties made by the Bombay cotton mill owners, appointed a special tariff board to investigate and report upon the situation.

The Bombay Labor Gazette, in its issue for June, 1927 (pp. 935–939), summarizes a portion of the board's report dealing with the

labor problem and labor conditions in Indian mills. Bombay mill owners, it is pointed out, are at a disadvantage as compared with the mills in the country, owing to the higher wages they are compelled to pay. They attempted to reduce wages in 1925, but were unsuccessful; the only practicable course for them under these conditions, the board holds, is an increase of efficiency. Unfortunately, the Bombay mills seem to be falling behind their competitors in this respect, "and as time goes on, the upcountry labor supply while retaining its relative cheapness as compared with that of Bombay will undoubtedly closely approach if not equal the latter in efficiency." The effect in the two sections of a reduction in working time is quoted as showing how the upcountry mills are gaining on Bombay.

The figures collected by the board regarding the fall in production owing to the reduction of the hours of labor from 12 to 10 show that while the Bombay Mill Owners' Association place this at 16 per cent in the spinning department and about 11 to 12 per cent in the weaving department, the experience of some of the upcountry mills indicates that owing to increased labor efficiency and improved conditions, such as the installation of humidifiers, the drop in the production in the spinning department has been reduced to 10 per cent, while there has actually been an increased production in the weaving department.

The report admits that improving the efficiency of the Indian worker is a slow process, but suggests certain reforms which might be introduced at once, and which are essential if the industry is to hold its own. Rest periods are prominent among these. Hours in the Indian mills are in general 60 a week, except in Baroda, where on the average they are 11 a day. The board advises a definite rest period of half an hour about two hours after commencing work, to permit of meals being taken. Recruitment of labor is another matter in which improvement is desirable. Employees are usually hired by a jobber or the foreman, who engages "not necessarily the most efficient man, but one willing to pay him the largest commission or in whom he was otherwise interested." The board recommends that all labor should be engaged directly by the officer of the mill in charge of the department which requires it or by a responsible assistant.

The employees had presented to the board a lengthy list of grievances, most of which, the board reports, can be remedied by closer supervision over the jobbers. One, however, they feel should be removed immediately, and that is the manner of punishing defective workmanship which results in spoiling cloth.

It is the practice in many mills to compel the weaver to take over cloth spoiled by defective workmanship, the full value of such cloth being recovered from him and credited to the mill. The weaver has often to dispose of the cloth as best he can. The figures obtained from the Mill Owners' Association on this point by the board show that in August, 1925, the total amount collected in this way by all mills was Rs. 8,709.[1] In one upcountry mill which the board visited it was found that the recoveries for spoiled cloth amounted in one month to over Rs. 4,000.

The mill owners defend the practice as being necessary to maintain efficiency and quality, but the board points out that some mills find it possible to get along without it, and that the practice causes an amount of resentment out of all proportion to any benefit which can result to the mill from it. As to the general practice of inflicting

[1] Average exchange rate of rupee in 1926=36.3 cents.

fines, as the Government is at present considering the matter, the board expresses no opinion, but contents itself with saying that "any fines levied should not be credited to the mill, but should be used in some way for the benefit of the operatives as a body."

The variation of wages from mill to mill causes much dissatisfaction, and it is suggested that a suitable wage scale should be drawn up, in consultation with representatives of labor, and that it should be adopted by all the mills.

Absenteeism is recognized as a serious evil, and the board suggests that the most effective way of minimizing its effects is the general adoption of a method already in use in a few mills.

> Under this system a certain number of spare hands are entertained in each department except the weaving department. The spare men are borne on the pay roll and receive their wages even if the full complement of workers in their departments is present. The general adoption of this method is considered most desirable by the board, who think that it would facilitate the grant of leave to operatives on a regular system such as the one to be found in force in a mill in Madras.

As one method of increasing output, the board recommends the extension of the piecework system to spinners, accompanying it with an increase in the number of spindles allotted to each spinner. "It is pointed out that in Japan the number of spindles looked after by each operative is 240, whereas in India it is only 180. In England it is 540 to 600, and in the United States it is 1,120. In all these countries, with the exception of India, the labor employed in spinning is almost exclusively female, whereas in India it is mostly male." The mill owners object that, owing to the inefficiency of the workers, no improvement is possible along this line, but the board states:

> All that can be said, in reply to this contention, is that we actually found an experiment on the lines we here suggest in progress in a mill in Madras, where three operatives, instead of four, are now looking after 720 spindles, that is, 240 each. Of the wages of the operative who has been dispensed with, four-fifths go to the three operatives and one-fifth to the mill and we were informed that the operatives were quite satisfied with the arrangement.

As another improvement, the board suggests increasing the number of looms looked after by each weaver. At present it is usually two but there are cases of weavers who look after three or four. If this larger number were generally assigned it would be an obvious economy for the mill and the weaver's earnings would be larger, even though rates should be somewhat reduced. Other economies along similar lines are possible in the preparatory departments. However, the most important improvement of all would be in the character of the supervision.

> The board are of the opinion that efforts to improve the efficiency of the operatives will be greatly hampered if there is no corresponding improvement in the standard of efficiency of the jobber who supervises their work. The wages paid to jobbers are such that a higher level of technical knowledge than they possess can reasonably be expected from them, and the remedy, therefore, lies in the provision of greater facilities for technical education.

VACATIONS WITH PAY

Vacations with Pay for Industrial Workers

A SURVEY of the vacation movement in the United States and European countries, published recently,[1] shows the general growth of this movement in recent years both here and abroad.

In this country the study included a survey of vacation plans instituted by company initiative, civil-service regulations granting vacations to public employees, and vacation provisions in trade-union agreements. Information was secured relative to the vacation policies of 494 firms. Of this number 199 were found to have active vacation plans, while 13 had had such a plan but had discontinued it. No plan adopted since 1920, however, had been abandoned and the present tendency is toward liberalizing the ones in force.

Only about half of all the employees in the plants having these plans receive vacations owing to the fact that a service period, varying in the different establishments, is generally required before a vacation is given while nearly all of the 175 trade-union agreements providing for vacations known to exist in the United States are local, and each affects a relatively small number of persons. On the other hand it is estimated that 2,000,000 public employees are receiving vacations under civil-service regulations.

Vacation provisions are included in nearly all collective agreements in many of the European countries but are a feature of relatively few of the agreements in this country. "The lack of a national policy," the writer says, "on the part of the various unions in the United States is indicated by the fact that for the most part only a few locals in each industry have obtained vacations. The two unions of which this is not true are the International Typographical Union and the Firefighters. The unions represented by fewer locals are the butchers, teamsters, telegraphers, street and railway employees, and electrical workers. In contrast with the many important European industries which have vacations with pay, through collective agreements, it will be noticed that only one of the unions listed above represents any large industrial group. Certain of the organized groups are employees of municipalities."

Approximately two-thirds of the company plans covered in this survey had been established since 1918. Seventy per cent were of the continuous-operation type, while in the other cases vacations were given during factory shutdown or inventory periods. Vacation wages were usually paid on the full-rate straight-time basis, exclusive of overtime, prior to the vacation period. More than three-fourths of the plans make no provision for the payment of wages on legal and national holidays. The vacation wages paid as reported by one-half of the 178 companies for which data were available were less than 1.5 per cent of the total annual pay roll.

[1] Mills, Charles M.: Vacations for industrial workers. New York, Ronald Press Co., 1927. 328 pp. (Research series of Industrial Relations Counselors (Inc.).)
For other articles on this subject see Labor Review, September, 1925, pp. 206, 207; May, 1926, pp. 1-7; June, 1926, pp. 41-45; July, 1926, pp. 35 36; May, 1927, pp. 35, 36.

INDUSTRIAL ACCIDENTS

Accident and Health Hazards of Locomotive Firemen

THE occupational hazards of locomotive firemen is the subject of an exhibit (No. 10) introduced by the Brotherhood of Locomotive Firemen and Enginemen in the 1927 arbitration proceedings as to wages on the southeastern railroads. The following data are there presented:

Locomotive operation, even under the most favorable conditions, is admittedly hazardous. Safe operation is made possible only by constant vigilance and continual repairing, as defects constantly develop in the complicated machinery under the extraordinary strain to which it is subjected.

The occupational hazard of the locomotive fireman is continual, as his working days throughout his life are spent in the engine cab. Even if promoted to the job of engineer this hazard is not diminished, except in so far as the engineer's work is somewhat less hazardous.

In the 10 years from 1916 to 1925 a fireman on one or more of the 70,000 engines in service was subject to the risk of injury from accidents which in that period killed 1,315 and injured 67,437 firemen, besides nontrain accidents with some deaths and several hundred injuries. The following table from the exhibit, compiled from accident data published by the Interstate Commerce Commission, shows the number of firemen killed and injured each year of that period:

NUMBER OF LOCOMOTIVE FIREMEN KILLED AND INJURED IN TRAIN AND TRAIN SERVICE ACCIDENTS ON CLASS I ROADS, 1916 TO 1925, BY YEAR [1]

Year	Killed	Injured	Year	Killed	Injured
1916	181	8,034	1922	88	5,500
1917	194	9,581	1923	121	6,892
1918	209	8,667	1924	79	4,968
1919	135	6,292	1925	75	4,650
1920	154	8,311			
1921	79	4,642	Total	1,315	67,437

[1] Interstate Commerce Commission. Accident Bulletin 94, Statement No. 5.

Grade crossings constitute a distinct accident and health hazard to firemen, as accidents at grade crossings of railways with railways may wreck the train and seriously injure the enginemen, and accidents at grade crossings of railways with highways, while not generally productive of serious injury to the railroad employees, subject both firemen and engineers to serious nervous strain because of their grave responsibility. In 1925 in the southern district there were 301 persons killed and 1,058 injured at grade crossings.

Besides the accident hazard incident to his occupation the locomotive fireman is peculiarly susceptible to certain diseases. Pneumonia has headed the list of diseases causing death since 1882, according to the 1925 report of the general medical examiner of the Brotherhood of Locomotive Firemen and Enginemen. The fact that heart disease and kidney disease showed the largest per cent of deaths in the pre-

eeding three years, says the report, "is coincident with the increase in size of power, tonnage of trains, and hours of service. Unusual mental and physical strain too long continued is indicated." Blindness is increasing rapidly, the eyes of firemen being subjected to intense heat and light.

While the number of deaths from typhoid fever has been materially reduced, "probably due to the more general acceptance of the inoculation treatment," "the same dangerous unsanitary conditions still exist—* * * contamination of food and water supply, being compelled to follow the engine too closely during the periods of good business on the road," etc.

The number of deaths and of cases of disability from specified causes among members of the Brotherhood of Locomotive Firemen and Enginemen in 1917 and 1924, as presented in the 1925 report of the general medical examiner of that organization and given in the following table, show the principal causes of death and disability among firemen and enginemen:

NUMBER OF CASES OF DEATH AND DISABILITY AMONG MEMBERS OF THE BROTHERHOOD OF LOCOMOTIVE FIREMEN AND ENGINEMEN, 1917 AND 1924, BY CAUSE

Cause	1917	1924	Cause	1917	1924
Death			*Death*—Continued		
Railroad accidents	173	128	Nervous diseases	23	16
Pneumonia	54	42			
Violence (other than railroad accidents)	146	58	*Disability*		
Tuberculosis	57	66	Amputations	46	18
Heart disease	49	84	Tuberculosis		101
Typhoid fever	27	4	Blindness	33	54
Influenza	1	3	Paralysis	5	10
Digestive diseases	36	16	Bright's disease	8	18
Zymotic diseases	20	4	Locomotor ataxia	3	10
Bright's disease	31	28	Heart disease	12	18
Cancer	17	13			

Results of June No-Accident Campaign By Portland Cement Association

DURING the month of June, 1927, a no-accident campaign was conducted by the Portland Cement Association. Reports from the association covering the month show a total of 50 lost-time accidents—a remarkable record, which is stated to be the best achieved, in comparable months, since the association's accident report system was inaugurated nine years ago.

There were 164 mills enrolled in the no-accident campaign, and 81 per cent of these, or 133, completed the month without accidents, and for about 50 of these mills this was a new achievement. The total of 50 accidents is 26 per cent of the number of accidents recorded for June, 1926, at which time there were fewer plants operating and fewer employees. The current report does not state how many men were involved nor the number of man-hours exposure.

The total time lost on account of these 50 accidents is not stated, but it is indicated that very few of the accidents were severe.

Ten, the greatest number of accidents, occurred in the packing department, with quarries second, reporting eight accidents. There was one fatal accident reported during the month.

Every Foreman a Safety Director

IN A paper entitled "Every foreman a safety director,"[1] Mr. Frank J. O'Connor, of the E. I. du Pont de Nemours Co., outlined the change which has recently taken place in American industry in the importance of the position of the foreman, making him to-day a man selected "for his knowledge of men, for his qualities of leadership, for his executive ability," who is thoroughly familiar with his trade or job, and who is "a point of direct contact between management and men for transmitting to the employees whatever policies the ownership desires." His job is not merely one dealing with production, and with all the details of shop procedure which go to produce that result, but he should be vitally concerned with the health and safety of his men and become the directing factor in the safety policy of the plant.

The speaker suggested several ways in which the foreman may help to carry on the safety work, and showed how effective they could be made because of his personal contact with the men, if he is the right type of man for that particular job.

His first effort should be directed toward education, "necessarily a slow process, for gangs usually have distinctive types—old-timers, newcomers, and temporary help." The first finds it hard to change his habits, the second must be taught the work that is expected of him as well as fundamental safety principles, and the temporary worker is indifferent, having no personal interest in his job. Because of this he presents probably the greatest problem and "brings out the very best tact and judgment that the foreman has." However, the safety of this man is just as important as that of the others because if he gets hurt it means broken safety records, reduced production, and expensive compensation, and "some of these gentlemen, unfortunately, are not averse to subsisting on compensation payments."

Next to education, the foreman becomes the directing factor in the safety policy of the plant by his example; that is, the little safety practices he himself employs are an object lesson to his men, who are constantly looking to him as their guide.

A constant check-up of the men, machinery, and equipment for the purpose of eliminating the hazards often referred to as "risk of employment," "lack of supervision," "defective equipment," etc., is another way in which the foreman may promote the safety movement in his plant. Constantly moving about among his men, familiar with the demands of their respective jobs and in close personal touch with all parts of his department and possibly of the entire plant, he is in a position to detect unsafe practices and to give advice intended to help his men guard against danger which they may not foresee but which he with his larger experience may easily detect.

In this connection safety meetings are suggested as being very important, wherein the foreman himself or some of his men may emphasize safety methods and draw lessons, perhaps, from some accident that may have occurred among them.

[1] Read at the Atlantic Coast Safety Conference, held at Philadelphia on June 24, 1927.

The foreman should also investigate all accidents, even minor ones, that take place in his shop or department and submit reports to the superintendent, stating clearly the cause of the accident and definitely and impartially fixing the responsibility, "whether the blame is to fall upon the unfortunate victim of the accident, upon the carelessness or negligence of some fellow workman, upon the omissions of the foreman himself, or upon the management for tolerating the condition which made the accident possible."

Service on the plant safety committee, where he may come in direct contact with the plant executives and learn how they handle large problems, is of very great value to the foreman, who may "transplant en masse the plant safety committee's whole theory and practice into his own smaller gang meetings."

"A good foreman is a good psychologist." He knows how to handle his men skillfully. He is interested in their personal and family problems. He is helpful in many ways that the men come to appreciate. He watches his opportunity to reward evidences of loyalty, to correct weaknesses, to caution his men against recklessness, and to develop them into dependable workmen.

"Yes, the foreman is the small neck of the bottle through which all the policies of the plant managers or of the plant safety committees must pass and where their full meaning is carefully studied and then broadly disseminated through the gang. He is not only a carrier of safety thought, he is the outstanding director of safety in the plant organization."

Accidents in the Laundry Industry in New York State [1]

THE proportion of compensated accidents which left permanent partial disabilities, and the average length of time these disabilities lasted, were each greater in the laundry industry in New York State for the year ending June 30, 1926, than in all industries combined, and this statement holds true for the two preceding years also, as is shown in the following table:

PROPORTION OF COMPENSATED ACCIDENTS IN THE LAUNDRY INDUSTRY AND IN ALL INDUSTRIES, RESULTING IN PERMANENT PARTIAL DISABILITY AND AVERAGE DURATION OF COMPENSATION PERIOD, 1924 TO 1926

Year ending June 30—	Per cent permanent partial disability accidents are of all accidents		Average duration (weeks) of compensation period	
	Laundry industry	All industries	Laundry industry	All industries
1924	25.7	21.2	70.0	51.8
1925	23.2	21.0	66.2	50.0
1926	19.9	17.4	75.3	45.4

The hazards in the laundry industry fall mainly into three groups—laundry machines, falls of persons, and handling objects. During the year ending June 30, 1926, there were 729 accident cases which

[1] Data from the Industrial Bulletin issued by the Industrial Commissioner of New York State, Albany, July, 1927, p. 278.

were closed by final awards of compensation, this being an increase of 22.3 per cent over the number closed during the preceding year and of 39.9 per cent over the number closed during the year ending June 30, 1924. By way of comparison it may be stated that the number for all industries in 1926 showed an increase of 36.6 and 30.8, respectively, over the two preceding years.

Of the 729 accidents in 1926, 220, or 30.2 per cent, were caused by laundry machines; 125, or 17.1 per cent, by falls of persons; and 162, or 22.2 per cent, by handling objects.

One explanation for the increase in the number of cases closed is that during the three-year period covered the statutory waiting period was reduced from 14 to 7 days, accounting for about 29 per cent of the total number of injuries for which awards were made. However, the increase in the number of accidents as indicated by the awards occurred, according to the report, during a period in which the total number of employees decreased about 5 per cent, suggesting that the cause of the increase must be sought within the industry itself, involving the personnel, the processes, and the manner of operation. The report gives the distribution of cases by cause, showing in nearly every instance an increase in 1926 over 1924 and 1925. Thus, as compared with 1925, there is an increase of 12.8 per cent in the number of compensated injuries caused by laundry machines, of 25 per cent in the number caused by falls of persons, and an increase of 39.7 per cent in the number caused by handling objects. The greatest number of disabilities due to handling objects was caused by strains and by pins in clothing, the latter introducing the danger of infection.

Industrial and Mining Accidents in Various States and in Ontario

INDUSTRIAL and mining accidents in certain States and in Ontario, covering the years 1924, 1925, and 1926, are summarized briefly in the following paragraphs:

Colorado

Coal Mines

THE fourteenth annual report of the Colorado State Inspector of Coal Mines, for 1926, shows that there were 48 fatal accidents underground and 4 in surface operations, and as usual falls of roof was the responsible cause for the greatest number, 17, or 32.7 per cent, the next largest number, 10, or 19.2 per cent, being due to mine cars and locomotives. The underground and surface fatality rates per 1,000 men employed were, respectively, 4.3 and 1.7. The report lists 1,863 nonfatal accidents, mine cars and locomotives causing the greatest number, 423, or 22.7 per cent, with falls of roof causing 391, or 21 per cent. Based on a total of 13,461 employees the nonfatal injury rate per 1,000 employed was 138.4, and the total accident rate per 1,000 employed was 142.3. There were 18 permanent partial disabilities and 1 permanent total disability, with 1,037, or 55.7 per cent of the total injured, in which the time lost was more

han 14 days. On the basis of production of coal, the report shows a fatality rate of 4.9 and nonfatal accident rate of 175.5 per 1,000,000 ons mined.

Metal Mines and Quarries

THE following table, with some modifications, is taken from the annual report of the Colorado Bureau of Mines for the year 1926. The original table gives the total number of days of employment and these have been converted to man-hours by multiplying by 10. The table in the report also gives accident rates on a basis of 10,000 days. This has been changed to show rates per 1,000,000 man-hours, which is the usual method employed by this bureau in presenting statistics of this kind.

NUMBER OF ACCIDENTS IN COLORADO METAL MINES AND QUARRIES, AND ACCIDENT FREQUENCY RATES, 1925 AND 1926, BY DEGREE OF DISABILITY

Place of work	Man-hours	Number of accidents					Accident frequency rates (per 1,000,000 hour's exposure)				
		Fatalities	Permanent disabilities	Temporary disabilities [1]	Slight disabilities [2]	Total	Fatalities	Permanent disabilities	Temporary disabilities [1]	Slight disabilities [2]	Total accidents
1925											
Underground	10,827,890	29	9	345	301	684	2.68	0.74	31.86	27.80	63.17
Surface	3,348,600	1	2	38	30	61	.30	.60	11.35	8.96	18.22
Mills	2,763,330	1	1	16	21	39	.36	.36	5.79	7.60	14.11
Smelters and auxiliary works	4,668,700	8	------	75	104	187	1.71	------	16.06	22.28	40.05
Quarries	2,877,620	1	3	73	123	200	.35	1.04	25.37	42.74	69.50
Placer mines	99,480	------	------	2	10	12	------	------	20.10	100.52	120.63
Total	24,585,620	40	15	549	589	1,183	1.63	.61	22.33	23.96	48.12
1926											
Underground	12,866,840	26	10	307	409	752	2.02	.78	23.86	31.79	58.44
Surface	3,568,730	3	1	70	112	186	.84	.28	19.61	31.38	52.12
Mills	2,814,050	------	2	23	31	56	------	.71	8.17	11.02	19.90
Smelters and auxiliary works	4,471,140	2	1	45	93	141	.45	.22	10.06	20.80	31.54
Quarries	2,551,430	3	2	86	202	293	1.18	.78	33.71	79.17	114.84
Placer mines	36,890	------	------	1	12	13	------	------	27.11	32.53	352.40
Total	26,309,080	34	16	532	859	1,441	1.29	.61	20.22	32.65	54.77

[1] Time lost over 14 days. [2] Time lost under 14 days.

Idaho

A VERY brief report on mining accidents in Idaho is contained in the twenty-eighth annual report of the inspector of mines for the year 1926. Fifteen fatal and 1,238 nonfatal accidents are noted, 25 of the latter resulting in permanent injuries and 508 (41 per cent) in a time loss of over 14 days, although the report states that a very large proportion of these "did not greatly exceed 14 days." All but two of the fatal and 68 of the nonfatal accidents occurred in connection with mining operations directly, the remainder being in mills, smelters, and auxiliary plants. In mining, 214, or 17.3 per cent, of the nonfatal injuries were due to falls of roof or walls; 8 were killed in this manner. Surface accidents numbered 115 or 9.3 per cent. At plants other than at mines the largest proportion

of the 68 nonfatal accidents (17, or 25 per cent) was due to falling or flying objects.

While not giving the number of employees, the report suggests "a very low accident rate" in 1926, which is "attributed to a great extent to the safety organizations, to the first-aid training given the men by all the larger mining companies, and to the sustained effort and interest maintained in safety work by those in charge, which is further augmented by close supervision."

Indiana

THE annual report of the Industrial Board of Indiana, covering the fiscal year ending September 30, 1926, includes general statements of the number of accidents, fatalities, compensation adjustments by agreement, and the total amount of compensation benefits paid for the period from September 1, 1915, to September 30, 1926, but detailed tables of accidents by industries, cause, nature, duration of disability, etc., are given only for the latter year.

For the entire period, 133 months, or 3,325 working days, there was a total of 466,509 injuries, or an average of 42,091 per year, and of the total number 3,080 resulted fatally, an average of 278 per year. During the same period, compensation adjustments by agreement numbered 193,067, and compensation payments (including burial benefits of $100 each in 3,080 cases, but not including medical benefits) amounted to $18,795,196.20, or an average of $1,695,812.27 annually.

For the year primarily covered by the report a total of 43,138 injuries, including 265 fatal accidents, were reported. This is a decrease of 12.3 per cent in the total number and of 13.7 per cent in the number of fatalities as compared with the preceding year. Of the total number of accidents reported, 4,494 (10.4 per cent) workmen were injured in mining coal, 43 of whom died, 2,973 (6.9 per cent) were injured (7 being fatal) in the automobile industry, and 1,808 (4.2 per cent) were injured (48 being fatal) in the manufacture of iron and steel. Seven hundred and thirty-one (1.7 per cent) workmen suffered the loss of some member of the body, and of this number 114 (15.6 per cent) such losses were chargeable to the operation of presses. The two major causes of accidents were dropping and handling objects (6,041, or 14 per cent) and being hit by falling objects (5,648, or 13.1 per cent). There were 3,062 (7.1 per cent) eye injuries.

Considering the duration of disability, the report shows 11,728 cases resulting in no disability or not reporting disability. These represent about 27 per cent of the total accidents reported. Of the 31,410 cases remaining 12,801, or 40.8 per cent, reported disabilities of 7 days or less. Of 714 cases reporting specific number of weeks of disability, 263, or 36.8 per cent, were disabled for 300 weeks. Injuries to minors numbered 322, the largest single number (20, or 6.2 per cent) being in telephone and telegraph work.

Iowa

THE report of the Iowa coal-mine inspectors for the biennial period ending December 31, 1925, shows an average employment of 12,553 in 1924 and of 11,241 in 1925, of whom in each year approximately

70 per cent were miners and loaders. The total production of coal was 5,544,950 tons in 1924 and 4,833,631 tons in 1925, or a decrease of 13.1 per cent. The average production per employee was approximately 442 tons, or 486 tons per underground worker in 1924 and of 430 tons per employee, or 472 tons per underground worker in 1925. In 1924 there were 18 fatal and 607 nonfatal (classified as "serious") accidents, and in 1925 there were 19 fatal and 447 nonfatal accidents. The following table, which gives the classification according to cause, also shows a decrease in the accident rates per 1,000 workers, both fatal and nonfatal, in 1925 as compared with 1924.

FATAL AND NONFATAL ACCIDENTS AND ACCIDENT RATES IN IOWA COAL MINES, 1924 AND 1925

Cause	Fatal				Nonfatal			
	1924		1925		1924		1925	
	Number	Rate per 1,000 employees	Number	Rate per 1,000 employees	Number	Rate per 1,000 employees	Number	Rate per 1,000 employees
Animals					24	1.91	14	1.25
Electricity			1	0.09	1	.08	1	.09
Explosives					4	.32	8	.71
Falls of roof or face	13	1.04	14	1.25	242	19.28	195	17.35
Falls of persons or timbers					14	1.12	28	2.49
Hand tools					37	2.95	22	1.96
Loading cars					77	6.13	69	6.14
Machinery					28	2.23	10	.89
Mine cars and locomotives	4	.32	2	.18	167	13.30	99	8.81
Shaft	1	.08	2	.18			1	.09
Miscellaneous					13	1.04		
Total	18	1.45	19	1.69	607	48.35	447	39.77

Massachusetts

THE following statement of reductions in the number of accidents in 1925 as compared with 1919 (both years ending June 30) is taken from the report of the division of industrial safety of the Massachusetts Department of Labor and Industries for the fiscal year ending June 30, 1926. It indicates the value of close attention to the guarding of machinery so as to protect workers.

REDUCTION IN ACCIDENTS IN MASSACHUSETTS IN 1925 AS COMPARED WITH 1919

Item	1919	1925	Per cent of decrease
Total number of machinery accidents	18,490	7,961	56.9
Injuries at point of operation	14,764	5,333	63.9
Accidents caused by belts	711	320	55.0
Accidents caused by gears	702	246	65.0

Infections caused a greater number of deaths (31) and of permanent partial disabilities (81) during 1925 than in previous years, although the ratio was 1 infection case to each 11 injuries as compared with 1 to 10 in 1924 and 1 to 9 in 1923. The report notes 254 cases of

occupational diseases, 5 of which resulted fatally—1 from carbon monoxide poisoning, 1 from nitrous gas poisoning, 2 from hydrogen sulphide poisoning, and 1 from anthrax.

Injuries to employed children between the ages of 14 and 18 numbered 2,497, of which 62 were permanent partial disabilities, most of which occurred at the point of operation. Accident cases investigated numbered 1,131 in manufacturing, mechanical, and mercantile establishments, and of this total 54 resulted fatally and 397 involved amputations or the loss of use of a member, including loss of sight.

Ontario

THE accident statistics noted in the thirty-fifth annual report of the Ontario Department of Mines cover the year 1925, during which time the report states that "there were 2,263 accidents reported," 37 of them involving fatalities and "resulting in the death of 42 men." No statement is made as to how many men were injured in the 2,226 nonfatal accidents, nor is there any information indicating their severity, cause, or nature, or other facts usually given in statistical data of this kind. The fatalities numbered 2 more than in 1924 and 18 more than in 1921. Many of them occurred in gold mines and mills, the number being 18, or 42.9 per cent. Explosions were the cause of 25.8 per cent of the fatalities, and miscellaneous underground causes were responsible for 29 per cent, as compared with 16.7 per cent and 25 per cent, respectively, in 1924. Of the 2,226 nonfatal accidents, 193, or 8.7 per cent, were followed by infection. Based on an employment of 15,575, a fatality frequency rate of 0.9 per million man-hours and a rate of 2.69 per 1,000 men employed are indicated. These rates are almost exactly the same as in 1924.

INDUSTRIAL HYGIENE

Hazards of Spray Painting

THE use of mechanical sprayers in the application of paint to large and small articles and to the interior and exterior of buildings has increased with great rapidity in the last few years and much apprehension has been created in the minds of workers and employers alike as to the hazards connected with the process. In spite of the interest in the subject, but two investigations of the dangers connected with this method of painting have been made, one [1] by N. C. Sharpe, of Toronto University, in 1921, and the other a recent study by the Pennsylvania Department of Labor and Industry, the complete report of which has not yet been published.

In the earlier study tests were made of the amount of lead in the air when the paint was applied to the surface of the wall without special ventilation and also when articles were painted in a cabinet with special exhaust ventilation. It was found that without ventilation there was a very decided lead hazard and also an increased hazard from the solvents and driers used in the paint, but that in spray painting in cabinets, if they were properly constructed and the ventilating equipment placed so that the spray was not drawn past the operator's face, the process is safe provided all the precautions used in other kinds of painting, such as strict personal cleanliness, protecting food and street clothing from dust and spray, etc., are followed. From tests with different types of masks it was concluded that it is impossible for workmen to get enough air through a mask which is effective in protecting the wearer from the lead-laden spray.

Quick-drying leadless paints, such as lithopone paints and those with a pyroxylin base are taking the place, however, of the lead paints. In a summary [2] of the results of the Pennsylvania study by Dr. Henry F. Smyth it is stated that "in many quick-drying and flat-finish paints we often have a lead hazard, especially in enamel paints, though in spray painting we find the lead hazard is diminishing as lithopone paints are coming more and more into use." This report deals largely, therefore, with the hazard from benzol, and the blood of 257 workers using lacquer, stain, or substitute shellac, paint or enamel, or varnish, was examined for evidence of benzol absorption. No sprayers were found to be seriously ill as the result of their work, but 84 of the 257 examined were found to have a more or less disturbed blood picture indicative of benzol absorption or poisoning.

The Journal of the American Medical Association, July 16, 1927, contains a reply (pp. 227, 228) to an inquiry received in regard to the industrial hazard in painting by the spray method, in which it

[1] See Labor Review, June, 1922, pp. 151, 152.
[2] The Nation's Health, May, 1925: Hazards of spray coating processes investigated, by Henry Field Smyth, M. D., pp. 24-26, 76.

is stated that lead paint is being used less and less in spraying, as the quick-drying paints are taking their place and that in these paints the chief danger is in the solvents.

The Du Pont Co., Wilmington, Del., has done a considerable amount of research on the safe use of Duco as regards both fire and health hazards. The composition of Duco [3] is said to be "somewhat less than 50 per cent solids, consisting of resins, pigments, flexible oils, and a relatively small amount of nitrocellulose. The fluid constituents consist of volatile solvents of the alcohol and aromatic hydrocarbon series and esters. The thinner furnished for use with Duco and with which it is usually mixed in about equal proportions contains no solids but is composed solely of solvents generally similar to those used in Duco." This paint is said to be free from benzol except just a trace (about 0.05 per cent), occurring as a denaturant of the ethyl alcohol content. The pigment content is less than 15 per cent and no lead pigments are used except in a few shades—yellows and greens. While the lead hazard is said to be relatively small, the usual precautions as to cleanliness, etc., should be observed.

The solvents in Duco mixed and ready to use give off inflammable vapors on exposure to the air, but the ignition temperature is higher than that of gasoline, kerosene, or turpentine. When mixed with air in proportions ranging between 2.34 and 13.9 per cent (by volume) these vapors are explosive. They are about three times as heavy as air at the same temperature and therefore tend to settle to the floor, but these effects may be nullified by relative temperature differences or draughts. The paint can not be ignited, however, while being sprayed from spray guns operating under normal pressure.

There is a distinct hazard in the dust of the pyroxylin finishes if the residue is allowed to collect in the ducts, or the spray booth or room, and if suspended in the air as a dust cloud in proper proportions it presents the same explosion hazard as other inflammable dusts.

As a safeguard against the inhalation of the vapors given off by the solvents in the quick-drying finishes forcible removal of these vapors by means of adequate exhaust systems is advised, and warning is given that open windows or skylights will not give sufficient ventilation in spray rooms. Such paints, it is said, should never be applied with spray guns in the open in a general workroom where other employees or other workers are exposed as there is liable to be a serious fire hazard as well as a health hazard created. Scrupulous cleanliness of workrooms and booths at all times is considered essential, and in order to prevent unnecessary liberation of solvent vapors as well as to decrease the fire risk, containers and receptacles containing Duco, thinners, primers, and other materials containing volatile solvents should be kept covered or closed.

While attention has been directed chiefly to the hazards from the constituents of the paints used in the spray machines and to the danger of fire it appears that there is another hazard which it is necessary to guard against. An account is given in the California Safety News, March–June, 1927, of two paint spray pot explosions, both of which resulted in the death of the operator. In one case heavy paint was being used on the outside of a building and the

[3] E. I. du Pont de Nemours Co. (Inc.). Precautions in the use of Duco, Wilmington, Del., 1925, 15 pp.

operator was warned if the air brush would not work to use hand brushes, as the paint pot, which was of cast aluminum, was designed to operate at a pressure not to exceed 50 pounds. The operator, however, wishing to get more pressure, replaced the safety valve with a plug, tightened the bolts on the lid or top, and turned on the pressure from a tank with 100 pounds pressure. The bottom was blown out and the pot struck the man, injuring him so that he died on the way to the hospital. In the other accident the container was being used with a pressure of approximately 90 pounds per square inch, and the container itself was so constructed that if it had been properly inspected it would have been condemned. In this accident, too, the bottom of the tank blew out, forcing the container upward and inflicting injuries on the operator from which he died.

National Labor Health Conference[1]

THE first national labor health conference to be held in this country met in Cleveland, Ohio, June 18 and 19. The conference, which was held under the auspices of the Workers' Health Bureau, was attended by 92 delegates representing 25 different international unions and 11 State federations of labor. In the opening address of the conference, James H. Maurer, president of the Pennsylvania Federation of Labor, declared that the workers must take steps to bring to an end the present enormous toll of life and health exacted by industry. Industrial accidents and sickness in America, he said, seem to be on the increase and at the present time one worker is killed on the job every 25 minutes and one worker is injured every 15 seconds throughout the year. The remedy, he believes, can not be left to the employers or the Government but must be applied by the workers themselves through systematic collective action.

A safety program for the mines of the country was approved by the conference. Delegates from various miners' local unions in both the hard and soft coal fields united in asserting that the measures urged by the Workers' Health Bureau would save most of the 2,500 miners killed and the 130,000 injured each year in the United States.

Safety measures for the protection of the members of the railroad labor organizations were formulated at a special meeting of the delegates representing these organizations and plans made for a careful study by the Workers' Health Bureau of the causes of sickness and death and of the benefits paid for these causes by the railroad companies.

A program for the protection of the 56 shop trades in the American Federation of Labor against industrial poisons and plans for protecting the lives of the building trades workers, 2,000 of whom are killed annually, was adopted by the conference.

In addition to the preparation of national health and safety standards in the various trades, the program adopted by the conference called for the inclusion of health and safety clauses based on national standards in trade-union agreements; the 40-hour week, with further

[1] Labor (organ of the railroad brotherhoods), Washington, June 25, 1927, p. 3; Free Voice of the Amalgamated Food Workers, New York, August 1, 1927, pp. 1, 3; The Railway Clerk, July, 1927, p. 283.

reduction of hours in extrahazardous trades and compensation insurance for accidents and occupational diseases in trade-union agreements to supplement existing State laws; and equal representation for organized labor in all labor departments and on all Government committees relating to safety, health, and welfare of workers.

It was decided by unanimous vote of the delegates to hold a second conference in 1928, at which all committees appointed should report on the work accomplished.

Economic Losses Due to Physical and Mental Impairments

SOCIETY accepts without much question, apparently, the economic burden entailed in caring for the great number of handicapped or wholly incapacitated wage earners, as well as the loss resulting from the reduction or the complete destruction of their earning power. Something of the extent of this loss is shown in an article on "The burden of the handicapped" in the May, 1927, issue of the Statistical Bulletin published by the Metropolitan Life Insurance Co., in which it is stated that at a conservative estimate there are considerably more than a million persons in the United States who by reason of their physical or mental impairments represent a social burden. Exclusive of cases of ordinary sickness there are, according to recent statistics, about 75,000 blind, 45,000 deaf and dumb, and, counting only those confined in institutions, about 320,000 who are feebleminded, epileptics, or mentally diseased, as well as 78,000 paupers, the majority of whom, however, are old people. In addition, it has been estimated, there are about 700,000 persons who are crippled to an extent interfering more or less seriously with their earning capacity.

It would not be possible to estimate the cost to the community of all these impairments, as there is no way to arrive at the losses involved in the case of cripples since the extent and character of their disabilities vary so greatly. In the case of the blind and of the deaf-mutes, however, some data are available. The average annual earnings of blind persons answering a questionnaire on this point were found to be $560 for males above 10 years of age and $300 for females, which would indicate that blindness reduces a man's earning capacity at least two-thirds, if, indeed, he is able to find employment at all.

On the basis of a cost of $500 a year per person for the maintenance of the blind, the total annual cost of maintaining them must be over $37,000,000, of which probably not more than one-fifth is earned by the blind themselves. Deaf mutes as a class do not represent so great an economic loss, as about 60 per cent of the men and 18 per cent of the women are employed. The average annual earnings of those employed are about $1,000 for males and $500 for females, so that the deaf mutes as a class come nearer to supporting themselves than do the blind. The maintenance of the blind and deaf and dumb, however, must cost over $30,000,000 a year more than their earnings, which represents only part of the economic loss, as the same persons, if normal, would have a much greater earning capacity.

It is possible to form a somewhat better idea of the burden placed on the general population through the care of the mental defectives

and the insane. In 1923, 50 State institutions, out of a total of 54, reported 36,713 feeble-minded persons under their immediate care. A staff of over 5,500 physicians, nurses, and attendants, or an average of 1 employee per 6.6 of these patients, was required for their care. The property tied up in these institutions represented a capital of more than $41,000,000, and the cost of maintenance was over $10,000,000, or about $310 per patient. Care of 7,755 epileptics at 9 of the 10 State institutions represented about the same rate of expenditure as for the feeble-minded, and the value of the capital tied up in these institutions was approximately $10,500,000. Added to these, the care of the more than 267,000 insane, it is estimated, brings the economic loss resulting from mental diseases to at least $300,000,000 a year. Counting only the mentally incompetent who are in institutions there is about 1 person out of every 300 of the total population who is dependent upon those having a normal wage-earning capacity.

Another set of substandard persons from the standpoint of economics are the delinquents and criminals who cost the taxpayers of the country large sums annually.

Only an approximation of the total loss to the country through these various classes of defectives can be made, as much additional information is necessary to give definite form to the total figures, but there can be no doubt, the report states, that the totals run into the billions annually even if the loss of more than two billion dollars a year from ordinary cases of sickness is not included. It is probable that a certain amount of handicapping is inevitable in a highly organized State, but the burden upon the productive members of society from this source should be recognized with a view to greater efforts for its prevention and control.

Working Conditions and Hazards in the Storage Battery Industry

AN ACCOUNT of present working conditions and hazards in the storage battery industry is given by Dr. Alice Hamilton in The Journal of Industrial Hygiene, August, 1927 (pp. 346–369). Conditions in this industry are contrasted with those prevailing in 1914 when a general survey [1] of the industry was made by the writer. At that time the five largest factories in the country employed approximately 900 men in lead work, while in 1926 the nine largest factories were employing about 7,500 in such work, this increase in manufacture being due to the enormous increase in automobiles and to the introduction of the radio.

There are two types of batteries manufactured, those made with Planté positive plates and pasted negative plates (used for stationary engines) and those (used for vehicles and radios) which are made with pasted plates for both positive and negative. The pasted plate is a molded leaden grid in which the interstices are filled with a paste of lead oxides. Both types of plates are charged with electric current which changes the metallic lead and the litharge red lead of the

[1] U. S. Bureau of Labor Statistics Bul. No. 165: Lead poisoning in the manufacture of storage batteries, by Dr. Alice Hamilton.

positive plates to a higher oxide, while the litharge of the negative plate is changed to spongy metallic lead.

Litharge paste usually with a little red lead is used for the negative plates, and for the positive plates a larger proportion of red lead is used, but owing to the fact that litharge is cheaper the proportion of litharge is continually increasing.

The materials and processes which present the greatest hazard are the dry lead oxides, the oxide paste, the dry pasted plates which must be handled, the lead burning of pasted plates, and the molding or casting of the grids. In processes in which metallic lead is used there is relatively little danger but handling of the oxides in the mixing, pasting, and finishing departments is extremely hazardous unless the strictest cleanliness and care are exercised.

In the earlier study it was shown that the work with the oxides was much more dangerous than the work with metallic lead, the rate of lead poisoning in two plants employing 619 men being 1.7 per hundred employees for molding and 59.4 for mixing and pasting. At that time the working conditions were never more than fair and in some cases were very bad. In the present survey very great improvement was found to have taken place. Of the nine plants visited four it was considered would come in Class A and two in Class B, although one of these plants had plans for improvements which would bring it into the first class. The other three plants still had certain departments which were below the standard.

In the molding rooms it is essential to prevent lead fumes, lead dust, escape of gas, and excessive soapstone dust. Only one of the plants was found to use gas for heating the kettles, the others using either oil or electricity. In some cases the dross was not always carefully handled and the hoods over the kettles were sometimes too narrow to catch the fumes. The soapstone dust used for greasing the molds was excessive in some molding rooms and although this is a comparatively inert dust and there is a question as to how serious a menace it is, still it is regarded as desirable to do away with large quantities of this dust. One company did not use any soapstone but used acetylene smoke instead for greasing the molds.

There is considerable danger from dust in removing red lead or litharge from wooden barrels or steel containers and in most plants there is an impression that only very expensive and complicated apparatus can be depended upon to prevent dust in dumping and blending. However, some plants were found to have solved the problem with comparatively simple apparatus. There is less danger of dust in those plants which buy their oxides in steel containers, as wooden barrels are never dust proof and the powder leaks out and is scattered wherever the barrels are handled.

Paste is no longer mixed by hand on a large scale and is never done by the individual paster. It is possible to mix the paste in closed mixers with no escape of dust, but this is not always done, and if the mixing and dumping and blending departments are not separate there is usually a dangerous amount of dust present.

The pasting of plates may be highly dangerous if not done under proper conditions. It is desirable to keep everything as wet as possible and frequent washing of floors, pasting benches, and all surfaces in the pasting room is essential. Several companies, in

addition to these precautions, have devices which prevent paste falling to the floor.

Transportation of the pasted plates to the drying room, to the pickling or forming room, or to the storage departments may be productive of much dust, but it is possible to avoid this by carrying the pasted plates while still wet on traveling belts instead of on trucks which require unnecessary handling of the plates. In every process it is necessary to prevent the production of dust, as this is a far greater hazard than the fumes.

The physical care of the workers in these plants should include proper washing facilities and enforcement of their use, clean lunch rooms with wholesome hot food, and a well-equipped medical department with careful medical supervision, including periodic examinations. Most of these requirements were met in eight of the nine plants visited. All of the plants provide medical service which was apparently adequate in most cases and in two plants was exceptionally good. Physicians are generally given the authority to order a change of work for any man who appears to be in danger of developing lead poisoning and it is the general aim to detect cases of poisoning at a very early stage.

The improvement which has taken place in the number of cases of poisoning is shown by the records of some of the plants. One company which had an average of 8 cases per month with 1,000 employees on the pay roll in 1918 had, during the first nine months of 1926, an average of 1 case per month with 1,350 on the pay roll. Another company which had a rate of 15 per hundred in 1924 had a rate of only 2.4 in the first 4½ months of 1926. In this plant nearly all the cases are of the acute or gastric type and only 2 per cent are cases of palsy. The younger men from 18 to 24 years are more susceptible to the poisoning. The physician at this plant regarded the operation of pasting and mixing as the most hazardous, followed by plate inspection, finishing and salvaging, assembling and lead burning, plate stock, and molding, in the order named.

In addition to these nine large factories there are said to be about 290 smaller plants in this country in which storage batteries are made. These without doubt present far greater hazards than the large plants as adequate precautions are less likely to be taken and medical supervision is generally lacking. The danger extends beyond the factory, also, for wherever old storage battery plates are collected or stored there is the hazard of lead poisoning. In one junk shop where scrap is simply collected, not treated, four severe cases of lead poisoning occurred as a result of handling old battery plates.

A comparison of conditions in this country with those in England and Germany is made, the writer having visited several plants in those two countries in the fall of 1925. The advantages on the side of the foreign countries are said to be the higher standard of governmental sanitary control and more rigid enforcement of safety regulations, together with the fact that there is a greater proportion of stationary batteries manufactured, with a consequent reduced exposure to lead oxides, while the advantages on the side of the United States are the more extensive use of mechanical devices to displace handwork, the general use of oil or electric heat in place of gas or coal, and the very small number of women and boys employed.

Health of Women in the Hatter's Furriers Trade[1]

THE effect of their employment on the health of women employed in the hatter's furriers trade was the subject of a recent study by the New York Bureau of Women in Industry in three establishments in New York City. There have been many studies of this industry in the past because of the mercury hazard, but the present study was made not so much to ascertain the presence of chronic mercurialism, since improved conditions have decreased its occurrence, as to determine the effect upon the health of the workers of other unfavorable conditions, especialy noise and dust.

In preparing rabbit fur for use by the hatters, the skins are first cleansed by rotation with sawdust in revolving drums, and then trimmed, sorted according to size and quality, and sheared of the long hairs in shearing machines. The skins are then carrotted with a solution of mercury nitrate to promote the felting of the fibers, after which the fur is cut from the skin and sorted and mounted for delivery to the hatter.

All but a few of the women in these plants are employed in the sorting and mounting rooms. They work at tables close to the cutting machines, the fur as it is cut from the skin being carried first to the sorters who pick out the poor pieces of fur, shreds of skin, etc., and then to the mounters who give it a final inspection, shape the fur into a mound and place it in a paper bag.

The cutting machines produce a high-pitched, buzzing noise so loud that conversation is possible only by shouting, and in addition to the noise the cutting rooms are very dusty. Suction devices are impracticable since the material handled is loose fur and any device for drawing off that which blows about the room would only succeed in blowing up more. Ventilation is also a difficult matter as drafts blow the fur, and the rooms, therefore, tend to be warmer than is desirable.

While no air analyses were made, tests with selenium test paper—a yellow paper which turns black when exposed to mercury vapor—showed that mercury vapor was present in all the departments, although there was less in the cutting room than in the drying and storage rooms.

The three shops had an 8-hour day and in two which were unionized there was no Saturday work, while the other shop was closed on Saturdays during the summer. The sanitary conditions were fairly good although in one shop there was no hot water.

The women examined were predominantly Italian, as of the 89 examined 58 were either born in Italy or were of Italian parentage. The ages ranged from 16 to 59 years, the average being 31 years, and the length of employment varied from 6 months to 42 years, with an average of about 7 years. Fifty-six of the women were married and practically all of them did their own cooking and housework, with the exception of laundry, and about one-third of them lived one-half hour's trip or more from the factory.

Past medical histories were secured from 82 of the women, more than half of whom stated they had never been seriously ill. As many of the women did not speak English and had to be questioned

[1] New York. Office of the Industrial Commissioner. The Industrial Bulletin, Albany, June, 1927, pp. 266, 267.

through an interpreter, whose knowledge was also limited, it was difficult to obtain satisfactory histories, but an attempt was made to go as thoroughly as possible into ailments or symptoms which seemed to be connected with the occupation. The women were questioned especially in regard to sensations such as dryness, soreness, or metallic taste in the mouth which might indicate chronic mercurialism, but nothing definite enough was discovered to justify a diagnosis of mercury poisoning, although 7 cases were found in which it was thought the condition of the gums gave evidence of mild mercurialism.

Abnormal conditions of the nose and throat were found in a large proportion of cases, but it was impossible to determine to what extent the fur dust was responsible for these conditions, although it seemed certain that if not the cause of them it did tend to prolong the inflammations. Irritation due to the fur dust was also believed to be the cause of the mild conjunctivitis found among more than one-fourth of those examined. Over 40 per cent of the women were found to have some impairment of hearing or complained of noises in their ears and it was believed that this was the result of the excessive noise in the cutting rooms.

The most common complaints found among these workers were colds, headaches, ringing in the ears, coughs, and effects of the sedentary type of work, such as constipation, while the most frequent physical defects were overweight, impaired hearing, inflammation of the naso-pharynx and gums, tonsilitis, mild anemia, slight tremors, poor posture, and weak feet.

The report concludes:

> Although no dramatic connection between work and health of workers was found in this study, it is apparent that elimination or lessening of the undesirable features in the trade would undoubtedly result in marked improvement in the health of the women employed. It can be said, in general, that improvement in industrial environments is occurring slowly but any investigation of specific conditions, such as this, reveals the need for continued effort in this direction.

Silicosis and Tuberculosis Among Granite Workers in Barre, Vt.

AN ACCOUNT of the silicosis problem as it exists in Barre, Vt., is given by Dr. William McFarland in The Journal of Industrial Hygiene, August, 1927 (pp. 315–330).

The disease is prevalent in the various granite-cutting centers of the State and is of great importance as the production of granite is one of the leading industries of Vermont. Granite is quarried in 17 localities besides Barre and it is also manufactured in other places than the producing centers.

The dust in the granite industry contains a high percentage of free silica or quartz. Granite is usually said to contain 70 per cent of silica, but this includes certain of the silicates and by petrographic analysis the "dark Barre" granite has been found to contain 26.578 per cent of quartz (free silica). There is general agreement among investigators of the effects of inhalation of inorganic dusts that those having a high free silica content are the most harmful because of the chronic fibrotic changes in the lungs produced by the dust and the abnormal susceptibility to pulmonary tuberculosis among silicotic

individuals. The chemical state of the silica is said to be the main factor in its harmfulness. Although some persons seem to be more susceptible to its effects than others, race does not appear to be a factor, as there are several races represented in the industry in Barre, and all alike seem to be affected.

An investigation of the extent of atmospheric pollution in five granite-cutting plants in Barre which were considered representative of the industry as a whole showed that the average dustiness was 2,397 particles per cubic centimeter, and that with such a rate of dust in the air workers would inhale nearly 2,000,000 microscopic dust particles with each breath.

According to Hoffman [1] the death rate from pulmonary tuberculosis among granite cutters in Vermont in 1917 was 1,095.5 per hundred thousand as compared with a rate of only 96.4 among the total adult population of the State in that year.

In simple silicosis the principal symptoms are labored breathing, diminished chest expansion, generally diminished resonance and diminished chest vibration, and lowered blood pressure and lowered vital capacity. The disease results in massive fibrosis of the lungs, and the writer states that he has seen the fibrous induration so marked that the lungs would not collapse when removed from the chest at autopsy, and the imprint of the ribs remained on them. There were also dense pleural adhesions which made it difficult to remove the lungs from the thoracic cavity. In these cases the lymph glands around the hilum were very firm and when cut produced a grating sound as though cutting through a bag of wet sand.

Tuberculosis is the most frequent complication of silicosis, and as the years of exposure to granite dust increase there is an increase also in the prevalence of tuberculosis. In addition to the symptoms present in silicosis, when complications occur there are further changes characteristic of the infection. Chronic bronchitis is not a frequent complication, although silicotic individuals generally attribute any chest condition to bronchitis even when they have an advanced case of tuberculosis. Silicotic individuals are not especially liable to pneumonia, either, although there may be a slight excess of cases among them and when it does occur the severity of the pneumonia depends on the virulence of the organism rather than on the condition of the lungs. The most common complication among persons with silicosis, therefore, is tuberculosis, and when it develops, in addition to the symptoms present in silicosis, these patients have the usual symptoms of tuberculosis such as increased difficulty in breathing, pleurisy pains, cough, expectoration, and loss of weight and strength and they show a special tendency to pulmonary hemorrhages. This is frequently the first noticeable symptom and many of these patients die from hemorrhage of the lungs.

The effect of long exposure to the granite dust is shown in the history of eight cases cited by the writer. In three cases of simple silicosis the ages were 34, 39, and 42, while the duration of exposure was 14 years in the first case and 23 in the other two. In five cases of silicosis with tuberculosis the ages were 50, 56, 57, 59, and 63, and the years of exposure 35, 42, 34, 38, and 50, respectively.

[1] U. S. Bureau of Labor Statistics Bul. No. 293: The problem of dust phthisis in the granite stone industry, by Frederick L. Hoffman, p. 26.

The course of the disease after it is established is said to be almost invariably very rapid, and the prognosis is grave. Periods when the disease seems to be at a standstill or subsiding do not occur, as in ordinary pulmonary tuberculosis, and tuberculous complications are much less frequent, owing to the rapid course of the disease.

Simple silicosis, being a nonbacterial condition is not contagious but when it is complicated with tuberculosis it is as great a menace to others as any ordinary case of tuberculosis, and often it is more dangerous owing to the general impression that it is not contagious and that it is not necessary to take the usual precautions against transmitting it to others.

There is a somewhat lower rate of tuberculosis among the families of granite cutters than in the general population outside the granite industry, although there seems to be an undue prevalence of tuberculous meningitis in families where there are small children. The lower rate is accounted for by the fact that granite cutters do not usually develop pulmonary tuberculosis until they are past the age of 45 when their children are older and less susceptible to infection, while outside the granite industry the disease usually develops in early adult life when the children are small and personal contact is greater. The granite cutters make good wages and live well and are said to be above the average industrial worker intellectually, which should make for a low incidence of the disease both among themselves and among members of their families.

Silicosis is a preventable disease and the present incidence of silicosis and tuberculosis among granite workers is sufficient evidence that the exhaust and ventilating systems in use in their work places are inadequate and that sufficient attention has not been given to correcting the conditions which are the cause of the disease.

Pneumonoconiosis Caused by Asbestos Dust

A NOTE from London in the Journal of the American Medical Association of July 23, 1927 (p. 304), states that a case of pneumonoconiosis due to asbestos dust—the second known to have occurred in England from this cause—was reported at a conference of the Royal Microscopical Society.

The particles found in the lungs, which represented the brittle iron-containing part of the asbestos fibers, were generally large and some measured as much as 360 microns.[1] Analysis of the asbestos dust showed that it contained 18 per cent of iron as ferrous oxide and the microscopic appearances of the dust were identical with those of the particles found in the lungs.

Linseed Oil Dermatitis

AN ARTICLE in the Journal of the American Medical Association, July 2, 1927 (pp. 20, 21), by Dr. F. J. Vokoun, gives the results of a study of the incidence of linseed oil dermatitis in linseed oil mills. The occurrence of three severe cases in the oil

[1] One micron = 1/25400 of an inch.

mill of a large paint manufacturing company shortly after the writer was appointed as industrial physician for the company prompted him to investigate the extent of this affection in his own and other establishments.

He found that dermatitis had been prevalent among the workers of the mill for many years, but the cases usually had been mild and had not caused incapacity for work. Study of the sickness records of the mill for the past three years did not show that any men had been treated primarily for dermatitis, but the superintendent of the mill stated that minor attacks were very common and that although the condition was rarely severe enough to cause the men to stop work, occasionally they would stay away until their condition had cleared up.

Questionnaires were sent by the writer to the large linseed oil mills of the country. In replying to the questionnaire the welfare director of a company having mills in five cities reported that although he could not give the exact number of cases occurring in the last five years, taking all the mills together, they had run up into the hundreds. The eruption occurred usually on the hands and forearms but occasionally on the chest or back if a man had an unusually tender or sensitive skin. Stopping work for three or four days usually was sufficient to effect a cure. In these plants Indian seed was considered to give the most trouble and South American seed was regarded as more irritating than seed from the United States or Canada.

A physician who has been taking care of the men for eight years in another plant believed that the dermatitis was not caused by the oil but by the flaxseed dust, which was present either in the ground flaxseed or in the seed. During the past five years, he stated, he had treated approximately 400 cases of the dermatitis. He found that persons with fair skins were more subject to the dermatitis than were persons with dark skins.

In the writer's experience the lesions occurred principally upon the backs of the hands and arms, and on other parts of the body if they came in contact with the oil. The lesions were symmetrical, separate, deep, and thickly scattered and were accompanied with intolerable itching and burning, particularly after bathing or retiring for the night. In the diagnosis of these cases the possibility of other skin infections must be considered but if the diagnosis is difficult the question can be settled by having the men stay away from work for a few days as the dermatitis will improve if it is due to the oil.

As the cases occurred in all the reporting plants more frequently when Indian or South American seed was being pressed than when Canadian or American seed was used it can be assumed that the irritating substance is present in larger proportion in the former seeds. The exact nature of the irritating substance, however, is at present undetermined.

Various ointments and lotions were used by the different physicians, but they often fail to give relief in severe cases, in which case the only thing to do for these sufferers is to grant them a "vacation" until the skin has had a chance to heal.

New Method of Determining Amount of Mercury Vapor in the Air

THE Boston Medical and Surgical Journal, July 28, 1927, contains an account (pp. 151, 152) of a device developed in the research laboratory of the General Electric Co. by which as small a proportion as one part of mercury in 20,000,000 parts of the atmosphere can be detected.

The increased industrial use of mercury in heating operations, in various chemical processes, and in the newly developed mercury turbine makes it important to have a method by which leaks in apparatus and traces of mercury vapor in the air can be detected quickly, as the effects of exposure to mercury are accumulative and continued exposure to slight amounts is dangerous. The new method is accurate and quick and does not require chemical training to carry out. Former methods of determining the amount of mercury vapor in the air required considerable time and could be made only by an expert chemist. Even then they were often far from accurate, especially when very small amounts of mercury were involved.

The test is based on the principle of a reaction between a solid substance, selenium sulphide, and the mercury vapor, which produces a colored substance easily discernible with the eye. The yellow selenium sulphide is applied as a coating on paper. Upon exposure to air containing mercury vapor the paper is blackened, the degree of blackening depending upon the amount of mercury, the length of exposure, and various other factors which can be definitely controlled. It seems that the smallest trace of mercury can be detected in this way.

When it is desirable to secure continuous and automatic registration of the mercury vapor a system has been devised by which a continuous strip of the paper is drawn slowly over an opening through which the air flows, the paper being moved at a uniform rate by means of a small clock motor. The paper can be compared, shortly after the exposure, with a standard scale showing the different shades from yellow to black in terms of mercury concentration.

A further development of the method is as follows:

> If an incandescent lamp is placed in front of the strip of paper and a photoelectric cell behind it, the amount of light reaching the cell will depend on the amount of blackening of the paper. The light can regulate the readings of an ammeter, so that the concentration of the mercury vapor can be determined either by observing the color of the paper or by reading the ammeter. It is also possible to so arrange the photoelectric cell circuit that, should the mercury concentration become dangerously high, a warning gong will be sounded. The apparatus is then an automatic chemist.

International Commission for the Study of Occupational Diseases [1]

IT WAS reported at the meeting of the medical inspectors of labor held in Düsseldorf in September, 1926, that the work of the Permanent International Commission for the study of occupational diseases was to be renewed. This organization was founded in 1906 but ceased to function at the beginning of the war. It was also

[1] International Labor Office. Studies and reports, Series F (industrial hygiene), No. 10: The medical inspection of labor. Geneva, 1926, p. 71.

proposed at this meeting to organize within the commission a special section comprising the medical inspectors of all countries for the purpose of facilitating the constant exchange of information on the results of their work and to bring about a distribution of scientific information in which each of its members would cooperate. A committee of four was appointed, therefore, to take the necessary steps toward creating an international association of medical factory inspectors.

Sickness Survey in Two Parishes of Montreal [1]

AN INVESTIGATION of the amount of sickness in two parishes of Montreal was made in the early part of December, 1926, by the French Health Center of the district in cooperation with the Metropolitan Life Insurance Co. The canvass covered the entire population, about 19,000 persons, and of this number 495 were found to be sick and unable to work.

The study showed that the time lost by males each year on account of disability averaged 8.9 days per person and by females 10.1 days, and that the amount of time lost was highest in the older ages.

The respiratory diseases and influenza, heart disease, cerebral hemorrhage, rheumatism, tuberculosis, and external violence were the chief causes of disability. There was a high percentage of long-term disability, as nearly half of the persons listed had been ill one year or longer, while only about 25 per cent had been sick less than a month.

More than a third of all the disabled sick were confined in hospitals or were in bed at home, while the remainder were up but were unable to work. Of the latter 18 per cent stated that they obtained medical attention at a dispensary or at an out-patient department of some hospital. This was a higher average of dispensary attendance than obtained in other cities where similar studies have been made.

Study of the age incidence of diseases shows that in the ages below 15 years, scarlet fever, whooping cough, diphtheria, and pneumonia and the other respiratory diseases predominated. Between the ages 15 to 34, influenza, tuberculosis, appendicitis, and anemia, and among women conditions associated with child-bearing, were the most frequent causes of illness, while in middle life, between the ages of 35 and 54, diseases of the digestive system and diabetes were most frequent. At this age period external violence was also important and the so-called "degenerative diseases" began to appear. In ages 55 and over rheumatism, diseases of the heart and kidneys, accidents, and respiratory diseases were the most frequent causes of disability. This distribution of diseases by age agrees with that found in similar surveys in other cities. Physicians were employed in 76 per cent of the cases and 20 per cent of those who were under the care of private physicians were attended also by visiting nurses.

The results of the survey were shown in a greatly increased attendance at the clinics of the health centers, as in the first three months of 1927 the attendance was 2,379 as compared with 1,346 in the same period of 1926. As a direct result of the introductory visit made by the nurse to the homes of this district, therefore, the services of the health center were extended to many persons who otherwise would not have been reached.

[1] Metropolitan Life Insurance Co. Statistical Bulletin, June, 1927, p. 6.

HOUSING

State-Assisted Housing in South Africa

IN its issue for June, 1927, the Social and Industrial Review of South Africa gives some particulars as to the progress of State-assisted housing during the year 1926. The most notable feature was the increase in the number of applications for State aid in carrying out schemes intended to better the housing conditions of the poorer element of the community, including the colored and native population. This was partly due to the coming into force of an act passed in 1923, under which local authorities were made responsible for seeing that adequate housing accommodation is provided for these classes.

During the year 1926 loans totaling £400,506, and involving the erection of 1,087 houses or other structures, were approved. These included 855 buildings for construction under municipal schemes, of which 129 were for European and 726 for non-European occupation, and 232 houses built with individual loans. The majority of the European houses erected under approved building schemes cost less than £700 each (exclusive of ground), while the non-European dwellings were for the most part built at a cost of less than £100 each. The average cost of the houses erected by individuals by means of housing loans was in the vicinity of £800. The sum provided for loan issues during the financial year 1926–27 was £437,000, leaving a final installment of £250,000 to be provided during 1927–28 out of the Government's total commitment under the housing act of £2,581,000.

From the passage of the housing act in 1920 to the end of 1926, loans amounting to £2,547,011 had been made to the local authorities of the various Provinces for the construction of 5,887 houses, of which 4,646 had been completed, 560 were still under construction, and 681 had not yet been commenced. During the same period loans amounting to £1,284,564 were approved for the erection of 1,457 individual dwellings, of which 7 were for colored persons. Municipal building schemes for European housing absorbed £770,726, to provide 802 dwellings.

Loans are limited to building or adding to houses, not to exceed in size five living rooms. An analysis of the figures shows that for Europeans the house of four living rooms is in the greatest demand, 1,144 of these being approved as against 564 of three living rooms, 538 of five rooms, and 4 of two rooms. In 27 instances applications were approved for making additions to existing dwellings. Close on to £200,000 has been allotted to housing for the colored, and £270,000 for purely native housing.

The housing board, in its annual report from which the Review quotes these figures, strongly recommends "that the Government commit itself to a further £1,000,000 under the housing act, of which a first installment of not more than about £250,000 be made available

next financial year, leaving the balance to be provided in installments during the two ensuing financial years."

In this connection the suggestion is made that preference be given to applications from local authorities for financial assistance in respect of contemplated schemes designed to meet the needs of the poorer section of the community, including non-Europeans, rather than to applications for individual loans. According to estimates, unless provision is made for further loan funds, Government assistance in connection with housing will practically come to an end during the present financial year.

COOPERATION

Membership Problems of Consumers' Societies[1]

THE question whether some radical change in the membership policies of cooperative societies will not be necessary if the cooperative movement is to hold its own was raised at the first annual congress of the Central States Cooperative League, recently held. Discussion at the congress brought out the fact that during the past two years there had been a decline in membership in every society in the Central States district, except one. The exception was the Cooperative Trading Co. of Waukegan, Ill., which has increased its membership by approximately 500 persons during the period.

The reasons for the great expansion of this society, which now has nearly 1,300 members, are seen in the facts that (1) it has expended for education and publicity work more than all of the other societies in the district combined, and (2) membership is made as easy as possible. Every person who trades with the society is allowed full, instead of half, dividends on his patronage, these dividends being applied on a share of stock in the society. Continued patronage, therefore, means that eventually the customer acquires membership in the society.

The Congress in the course of its proceedings adopted resolutions urging the affiliated societies to adopt these new membership policies as soon as possible, to increase their educational work, and to adopt a more liberal advertising policy.

Condition of Labor Banks as of June 30, 1927

THE research department of the Amalgamated Clothing Workers of America has furnished the following data showing the financial condition of the labor banks throughout the United States as of June 30, 1927. Since the end of 1926 three banks have been removed from the list. Of these, two—The Brotherhood of Locomotive Engineers Title & Trust Co. of Philadelphia and the Brotherhood of Locomotive Engineers Bank & Trust Co. of Birmingham, Ala.—were sold to private interests. It was discovered that the third, the Brotherhood State Bank of Kansas City, was not controlled by organized labor. The 33 banks contained in both statements show an increase in undivided profits of $299,355, in total deposits of $2,093,637, and in total resources of $2,236,423.

[1] Central States Cooperator, Bloomington, Ill., June, 1927.

CONDITION OF LABOR BANKS AS OF JUNE 30, 1927

Name and location of bank	Surplus and profits	Total deposits	Total resources
Mount Vernon Savings Bank, Washington, D. C.	$134,535	$3,565,406	$3,919,840
Brotherhood of Locomotive Engineers Cooperative National Bank, Cleveland, Ohio	458,016	21,412,426	23,788,824
United Bank & Trust Co., Tucson, Ariz.	1,823	634,107	760,148
Peoples Cooperative State Bank, Hammond, Ind.	40,612	1,683,271	1,871,310
Nottingham Savings & Banking Co., Cleveland, Ohio	17,482	799,026	891,508
San Bernardino Valley Bank, San Bernardino, Calif.	28,952	1,832,012	2,080,995
Amalgamated Trust & Savings Bank, Chicago, Ill.	157,162	3,053,308	3,449,198
Transportation Brotherhoods National Bank, Minneapolis, Minn.	83,540	2,329,072	2,697,637
Amalgamated Bank of New York, New York City	337,180	8,359,609	9,396,381
Labor National Bank of Montana, Three Forks, Mont.	11,599	159,949	209,798
Federation Bank & Trust Co. of New York, New York City	900,167	17,460,120	19,417,237
Telegraphers National Bank, St. Louis, Mo.	174,598	6,436,893	7,384,032
Brotherhoods Cooperative National Bank, Spokane, Wash.	111,253	2,734,870	3,249,073
Brotherhood of Railway Clerks National Bank, Cincinnati, Ohio	62,859	4,231,003	4,768,627
United Labor Bank & Trust Co., Indianapolis, Ind.	9,497	975,829	1,221,227
International Union Bank, New York City	216,524	4,068,063	4,642,778
First National Bank in Bakersfield, Bakersfield, Calif.	21,170	1,394,273	1,515,443
Labor National Bank, Great Falls, Mont.	15,685	560,390	677,376
Farmers & Workingmen's Savings Bank, Jackson, Mich.	19,770	883,125	1,003,810
The Peoples National Bank of Los Angeles, Los Angeles, Calif.	70,967	3,601,595	4,367,775
Engineers National Bank, Boston, Mass.	90,225	3,392,480	4,298,866
Labor Cooperative National Bank, Paterson, N. J.	114,558	4,252,505	5,015,004
Brotherhood Cooperative National Bank of Portland, Portland, Oreg.	77,321	2,438,751	2,921,997
Brotherhood State Bank, Hillyard, Spokane, Wash.	5,672	205,883	237,431
Labor Cooperative National Bank, Newark, N. J.	125,000	2,845,077	3,248,177
Brotherhood Cooperative National Bank, Tacoma, Wash.	57,019	2,703,528	3,163,717
The American Bank, Toledo, Ohio	50,000	720,197	998,032
Brotherhood Bank & Trust Co., Seattle, Wash.	41,143	1,076,718	1,372,969
Gary Labor Bank, Gary, Ind.	11,734	497,741	606,132
Labor Bank & Trust Co., Houston, Tex.	16,154	400,628	518,339
Hawkins County Bank, Rogersville, Tenn.	58,920	561,184	670,104
Labor National Bank of Jersey City, Jersey City, N. J.	77,726	1,639,108	2,040,548
Brotherhood National Bank of San Francisco, San Francisco, Calif.	100,000	1,630,868	2,331,773
Total (33 banks)	3,758,863	108,539,615	124,736,112

Constitutionality of Florida Cooperative Marketing Act

AN ADDITIONAL State has recently upheld its cooperative marketing act. A case was recently before the Supreme Court of Florida on appeal from the circuit court of Pinellas County, involving the constitutionality of the law. (Lee et al. *v.* Clearwater Growers' Assn. et al., 111 So. 722.)

The case was brought in the lower court by the association to enjoin Lee and his wife from disposing of their citrus fruit to other parties than the association, in direct violation of the contract with the association. A temporary restraining order was issued against Lee by the circuit court and from this he appealed to the supreme court, contending (1) That the contract between himself and the association was violative of the State constitution; (2) that it was in restraint of trade and therefore violated the Federal Constitution; (3) that the liquidated damages fixed by the contract for violations were "unjust and disproportionate" to the damages shown; and (4) that the article of the marketing law establishing the right of the association to an injunction and to a decree of specific performance was in contravention of the State law relating to the granting of injunctions.

The first contention was dismissed by the court as without merit, the court quoting the declaration of policy of the act and remarking that cooperative marketing associations "have become a necessary

factor in our economic life," and pointing out that laws similar to the one here attacked "have been before the courts of last resort for interpretation in various parts of the country and have invariably been upheld." (Cases cited.)

As to the second contention, it was pointed out that in determining whether any given statute or contract was in restraint of trade the courts have held that such restraint must be shown to be detrimental to public welfare and obnoxious to public policy. "There is no attempt here to limit production or control or to fix the price in the market of the commodities embraced in the contract, and so far as we have been able to find no contract has been declared void that does not do this." The point was therefore dismissed.

The liquidated damages of 50 cents for each standard box of fruit, fixed by the contract, were held not to have been shown to be unjust, oppressive, or disproportionate to the damage done by the violation of the contract. The court also upheld the right of the association to an injunction and to a decree compelling Lee to perform his contract.

The decision of the lower court was therefore affirmed.

Cooperative Housing in Czechoslovakia

THE Czechoslovak Statistical Office has recently issued a report [1] covering the operations of cooperative housing societies in that country in 1924.

At the end of 1924 there were in Czechoslovakia 1,101 societies of this type, of which 787 furnished reports. These societies had constructed 11,926 residential buildings containing 24,365 dwellings and providing accommodations for 91,236 persons; besides erecting 26 nonresidential buildings. The importance of the operations of these societies can be realized when it is remembered that the population of Czechoslovakia numbers only some fourteen or fifteen millions.

The statement below shows the number and type of dwellings provided:

	Buildings	Dwellings
1-family dwellings	9,072	12,694
2-family dwellings	1,600	
3-family dwellings	130	
Multi-family dwellings	1,124	11,671
Total	11,926	24,365

This construction cost 1,624,363,000 crowns [2] of which 124,502,000 crowns was granted by the State, 1,159,024,000 crowns was in loans guaranteed by the State, and 169,872,000 crowns in other loans. Loans from credit cooperatives amounted to 154,860,000 crowns. The share capital of the societies themselves amounted to 38,584,000 crowns.

[1] Czechoslovakia. Office de Statistique. Rapport No. 5 (1927): Coopératives pour la construction de maisons d'habitation en Tchécoslovaquie à la fin de 1924. Prague, 1927.
[2] Czechoslovak crown at par = 20.3 cents; exchange rate in 1924 = 2.95 cents.

The occupational distribution of the membership of these housing societies in 1924 was as follows:

	Number	Per cent
Farmers	1,832	2.3
Artisans	10,647	13.4
Agricultural laborers	1,237	1.6
Miners	2,511	3.2
Building-trades workers—		
Skilled	2,030	2.5
Unskilled	2,331	2.9
Other workers	14,476	18.2
Public employees	35,165	44.1
Salaried employees	3,602	4.5
Others	5,860	7.4
Total	79,691	100.0

Palestine Workers' Contracting Society

THE most important employing organization in the Palestine building and construction industry is the Solel Boneh, or the Jewish Workers' Cooperative Association for Public Works, Building, and Manufacture (Ltd.). William Schack, in an article in the American Contractor of July 16, 1927, traces the origin and development of this labor enterprise, from which account the following information is taken.

At the close of the World War when Palestine was made a mandate of England the Jews began to come from all parts of the world to settle in the Holy Land, to engage in agriculture, to work in factories and shops, or to make investments. Building of all kinds was undertaken, with the consequent employment of many Jewish workers. Serious difficulties had to be met. Large numbers of these newly arrived Jews had had no experience at all in the building trades and were unused to the long, hot, dry season of Palestine, and the brief but "dreary" winter in certain sections of the country.

These immigrants also had to compete with the native Arabs, whose living standard was exceedingly low, and among whom were numerous skilled builders as well as large numbers of unskilled workers, including women and children, who could be utilized for crude construction and road making.

In the face of these conditions the Solel Boneh was organized and in the six years of its existence has made substantial progress. Even now the association is able to show a fair profit under adverse economic conditions. "It has carried on unsentimentally, on firm business principles, and has attained a hard-won reward." As reflecting the confidence placed in the Solel Boneh it may be noted that in 1926 over 70 per cent of the contracts awarded the association were by private employers.

Among the organization's undertakings are business and home building in brick, reinforced concrete, and stone, bridge construction, road building, and drainage. The most modern and largest hotel in Palestine was erected by the Solel Boneh. In addition to construction work the organization supplies building materials. The results of its work may be seen in every part of the country. Under its

auspices there are cooperatives of carpenters and one society concerned with the manufacture of cement products. Furthermore, with a view to coordinating its various activities in the stone industry the Solel Boneh has recently created the Jewish Workers' Association for Stone Manufacturing (Ltd.).

Conditions of Membership

A MEMBER of the Solel Boneh must be a member of the General Cooperative Association of Jewish Labor, must be engaged on contracts of the Solel Boneh or on public works, building, and manufacture, and must buy one share of common stock valued at $2.50, which pays no dividend.

The organization is endeavoring to accumulate as large funds as possible in order to enable it to employ more building workers, to train inexperienced men, and to broaden its activities by securing new equipment. The purchase of new equipment is regarded as of very great importance, as the association hopes to procure a contract for certain works which the Government is soon to undertake.

The chief benefit to members is the ease with which they can secure jobs, although the organization does not guarantee employment. There is no doubt, however, that the association acts as a stabilizer in the labor market. Furthermore, members get as high wages as can be had, as the organization has forfeited contracts rather than pay its members the low rates accepted by the natives. It is the intention that, when profits increase considerably and the organization reaches its highest efficiency, wages will be raised.

Last year 10 per cent of the profits was used to help the unemployed. As a rule 25 per cent of the profits goes into a reserve fund, 10 per cent is assigned to the General Cooperative Association, and 25 per cent to preferred stockholders as dividends (not over, however, 6 per cent of the par value of such stock). The disposition of any remaining profits is decided upon by the general convention, which may allocate them to the reserve fund or appropriate them for the members' economic, social, or cultural uses, such as reading rooms, schools, sick benefits, hospitals, convalescent homes, pensions, and relief for immigrants.

Appropriations for such economic, social, and cultural purposes have not as yet been available in any large amounts, but the organization does pay the equivalent of 3 per cent of its pay roll to the workers' hospital.

The workers are paid for work performed—piecework, in effect—the rate being set by the capacity of the average man and subject also to the amount of the contract for a given undertaking.

Being a contractor, Solel Boneh hands over its jobs either to individual laborers or, as in the case of more specialized tasks, to unified groups of laborers, with whom it makes a contract. This binds the workers to follow out the job exactly as prescribed, especially with respect to living up to the specifications; to be responsible for the quantity of materials calculated as necessary and to make good out of its own pocket any wastage; to improve or to do all over again any job that does not meet with the approval of the association's engineers, as laid down in the contract.

The industrial groups associated with the Solel Boneh are listed below:

	Number of groups	Number of members
Foremen and masons	51	853
Reinforced-concrete workers	6	132
Masons and tile layers	3	121
Rabitz [1]	2	20
Iron construction workers	2	18
Walling timber workers [2]	5	42
Plasterers	4	35
Painters	8	45
Carpenters	7	129
Metal workers	3	40
Transport	6	230
Installation workers	4	32
Spengler [3]	1	5
Electricians	2	13
Cement plant workers	2	36
Quarry workers	7	265
Stonecutters	1	15
Asphalt workers	1	9
Well borers	1	8
Road and drainage workers	24	240
Total	140	2,288

The Solel Boneh's contracts for the past two years have aggregated 631,755 Egyptian pounds or approximately $3,188,775. Among such contracts are included the power station and buildings for the commercial center at Haifa; drainage, streets and buildings for the American Zion Commonwealth in Afuleh and Balfouriah; streets and buildings for the same organization in Herzliah; The Hebrew University on the Mount of Olives (Mt. Scopus); the city hospital and eight other buildings in Tel-Aviv; and a building in Jerusalem.

Policies of the Association

ONE of the outstanding policies of Solel Boneh is concentration on big orders for the purpose of reducing costs by enhanced purchasing power, by additional use of machinery, and by economy in supervision. If small undertakings are contracted for, an effort is made to combine them with other work in the neighborhood. Small jobs may be accepted if they hold out prospects of larger contracts in the future.

Among other objectives of the organization are the attraction of high-grade technicians and foremen to the cooperative; and the establishment of confidence by the highest quality of work, by conscientiously executed contracts, and by setting the price high enough to insure good work and a profit.

The organization does not do the work itself, but assigns it to organized cooperative groups who assume full responsibility for its execution and are willing to work for piece-rate wages.

[1] "Rabitz" refers to structural work for concrete walls.
[2] A translation of "Schalungsarbeiter."
[3] Probably some kind of woodworker.

General Convention

THE general convention of the Solel Boneh, which meets at least once a year, has supreme authority over the organization. At the meeting a council of 15 to 20 members is elected. From these members 8 are elected to serve on a managing committee, the ninth member of which is appointed by the general cooperative association.

Consumers' Cooperation in Basel, Switzerland

A RECENT report from Calvin M. Hitch, American consul at Basel, Switzerland, contains some interesting data on the development of consumers' cooperation in that city. Basel is the headquarters not only of the General Cooperative Society, a retail organization, but also of the Union of Swiss Cooperative Societies, the national cooperative wholesale society.

The General Cooperative Society was founded in June, 1865. The report points out that its establishment is "directly traceable to the Civil War in the United States." At the outbreak of the war the American trade in the silk ribbons, whose manufacture was the most important industry in Basel, was immediately cut, and this, together with a serious decline in the trade with England, caused widespread unemployment in the industry. To provide a means of supply of food at low prices the General Cooperative Society was established, with an original membership of 212 persons.

At first only one store was operated, but by the end of 1866 three others had been opened. In 1866 also the society established its own bakery. In 1869 a conference of Swiss cooperative societies was called with a view to establishing a wholesale society. This failed, but as a result the General Cooperative Society undertook the purchase of goods for the other societies on a commission basis, an arrangement which continued for 20 years.

A butcher shop, undertaken jointly with another society, was opened in 1871, but the other society withdrew at the end of the year. After operating the shop at a loss for the next 10 years, the general society finally discontinued the sale of meat, but resumed it 18 years later when a controlling interest in a large slaughterhouse operating many retail stores was purchased.

Due to the poor quality of milk being sold in Basel the society opened a dairy branch in 1884, and this has been one of the most popular branches of the business. The society now operates five dairy farms of 267 acres, three of which it owns. A staff of experts is maintained to test the milk for quality and purity.

At the close of 1926 the society owned and operated 188 retail establishments, as follows:

	Number
Grocery stores	140
Butcher shops	34
Shoe stores	10
Furniture and furnishings stores	3
Department stores	1

It also has opened a savings department, paying interest of 4¼ per cent. On December 31, 1926, members' deposits in this department amounted to 11,310,794 francs.[1]

The table below shows the development of the society by 10-year periods:

DEVELOPMENT OF GENERAL COOPERATIVE SOCIETY OF BASEL, 1866 TO 1926

[Franc at par=19.3 cents; exchange rate in 1926 approximately par]

Year	Membership	Reserve fund	Amount of business	Rate of dividend (per cent)
		Francs	*Francs*	
1866	555	1,710	181,021	14.0
1876	2,333	69,818	1,172,843	8.0
1886	5,412	133,860	2,347,235	6.0
1896	15,591	343,117	7,269,456	10.0
1906	28,538	864,389	16,408,006	8.0
1916	37,769	1,888,007	27,885,909	7.5
1920	40,869	2,328,834	58,551,309	7.0
1921	41,133	2,454,360	56,155,563	7.0
1922	41,546	2,567,845	48,994,293	7.0
1923	41,436	2,697,845	47,910,376	7.5
1924	41,844	2,854,733	50,508,131	8.0
1925	42,231	3,023,676	53,232,017	8.0
1926	43,158	3,214,785	53,086,041	8.0

As the above table shows, the membership in 1926 numbered 43,158. If four persons be estimated to each family, then 75 per cent of the total population of the city receive their supplies from cooperative sources.

On the 1926 sales net earnings of 4,215,594 francs were realized, of which 2,974,800 francs was returned to the members as dividends on purchases.

Provision for Employees

IN ADDITION to wages, the employees have, since 1870, participated in the profits of the society.

In 1883 an accident fund was created to provide compensation for occupational accidents to the employees. An initial fund of 6,000 francs was set aside and to this additions are made each year from the society's reserves. The fund is used to pay premiums on accident insurance policies for the workers. The benefits under the policy, however, are only 80 per cent of the wages, and the remaining 20 per cent of wages is paid by the society, so that an injured employee receives full wages during the entire period of disability.

The society also carries two kinds of insurance for its employees, one providing a pension after 60 years of age is reached or at any age if totally disabled, and the other providing for the widow of an employee a pension of 30 per cent of his wages, plus 5 per cent for each minor child. The insurance is carried on under a contributory plan, the society paying two-thirds of the premium for the first type of insurance and one-half of the premium for the second, the remainder being paid by the employee.

A separate fund is maintained to provide for employees who because of advanced age have been unable to obtain insurance.

[1] Swiss franc at par=19.3 cents; exchange rate in 1926 approximately par.

Difficulties Encountered

IT IS interesting to note that the situation in Basel as regards private and cooperative trade has been the exact reverse of that in the United States. Here the cooperative store has had difficulty in holding its own against the enormous purchasing power of the chain-store systems. In Switzerland, according to the report—

> When the cooperative movement was in its infancy, the retail merchants gave it little or no thought, but with the rapid increase in membership and turnover sharp opposition soon developed. The retail merchants found it increasingly more difficult to compete in prices with the cooperative stores for the reason that the latter through collective bargaining could buy in much larger quantities and at cheaper prices. They concluded that the only way to protect themselves was to follow the example of the cooperative societies by organizing a joint purchasing center of their own, and to give rebates to customers on all cash purchases.

This rebate system gained in popularity "and threatened for a time to check the development of the cooperative societies," but its popularity waned during the World War and is stated to be on the decline.

In 1885 the bakers and grocers made a concerted attack upon the cooperative society, attempting to show that not only the dealers but private individuals and even the State would suffer from the expansion of the cooperative societies. "The greatest grievance of the retailers seemed to be that the cooperative societies had forced them to reduce their prices in order to hold their customers."

> The cooperative society emerged from these controversies stronger and more popular than ever before. The retailers evidently came to the conclusion that the cooperative idea had become too firmly embedded ever to be eradicated, and down to the present time no further attempts have been made in that direction.

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

A Survey of Industrial Group Insurance

GROUP insurance viewed from the standpoint of its importance as a personnel problem in industry is the subject of a recent report by the National Industrial Conference Board.[1]

Reports from 618 companies having approximately 1,235,000 employees were used as the basis of the study and more than 800,000 of the employees in these establishments were covered by the insurance, the amount of the insurance totalling over $1,300,000,000. All but about 5 per cent of these plans were found to have been started since 1917, the increase in the number of plans being especially marked during and immediately after the close of the war, when labor was hard to obtain and difficult to hold. In many instances the desire to have a more satisfied force and thus reduce the labor turnover was the reason for starting group insurance. Thus of 430 companies reporting their reasons for the inauguration of group life insurance for their employees, 218 stated that it was to reduce the labor turnover or to secure better cooperation and loyalty on the part of their employees.

The hazards covered by the different plans were death or death and permanent total disability in 537 cases; 4 plans covered sickness and accident disability only; and 77 plans covered death, permanent total disability, and sickness and accident disability.

Although at first the group life insurance policies were paid for entirely by the employer, the contributory plan in which both employer and employees share in the cost has been steadily growing in favor. There are various reasons given for the change. These include a less paternalistic attitude on the part of employers; a change in the viewpoint of employees who were at first indifferent regarding insurance but who now desire the insurance and are willing to cooperate and share in its cost; and the cost of the noncontributory plan to the employer which is felt to be excessive and also the fact that such a plan does not give him any indication as to whether or not the employees appreciate the insurance. A classification of the amount of insurance according to type showed that 47.6 per cent was noncontributory, 45.8 per cent was contributory, and 6.6 per cent was additional insurance paid for entirely by the employees. As the employer pays at least 25 per cent of the cost of the contributory insurance it is evident that a very large part of the insurance held on the employees covered in this survey is paid for by the employer.

A classification of the average amount of life insurance per employee by the size of establishment showed that there was a general tendency for this to increase with the size of the plant. The average amount

[1] National Industrial Conference Board (Inc.). Industrial group insurance. New York, 1927. 44 pp.

of insurance per employee was $1,102 in establishments having less than 200 employees and $2,229 in those with over 25,000. The average annual premium for each $1,000 of group life and total disability insurance is estimated to be between $10.50 and $12, which would bring the total cost of carrying this insurance to between 55 and 65 millions of dollars annually, the larger part of which is borne by employers.

Group sickness and accident insurance was carried by 81 of the 618 companies and covered approximately 10 per cent of the employees in the companies supplying data for the investigation. This form of insurance usually covers sickness and temporary accident disability from nonoccupational causes. The average weekly benefits of employees insured for these causes in three of the largest insurance companies in the country were $11.44, $12.97, and $13.37, respectively. In the majority of the companies in which this type of insurance is provided the cost is borne jointly by the employer and the insured employees, although in 17 cases the employer alone paid the premium and in 13 cases the employees alone.

In summing up the accomplishments of group insurance the report states that it has provided protection for large numbers of employees who do not have or can not obtain adequate insurance except at relatively high rates. The companies expressing an opinion on this point were almost unanimous in agreeing that the insurance was a great help to employees and their dependents, and that it has relieved many workers of a source of worry and to that extent made them better workmen. It has also taught many workers the value of insurance so that they carry more protection than formerly and has had a tendency to encourage saving among them. Employees generally are said to appreciate group insurance, although naturally the older and the married workers value it most.

Report of Industrial Commission of Georgia

THE Industrial Commission of Georgia combines its fifth and sixth annual reports, covering 1925 and 1926, into one report. The data shown in the report are, with but few exceptions, the combined figures for the two years. There were 60,516 accidents reported as having occurred from January 1, 1925, to December 31, 1926, 28,790 of these occurring in 1925 and 31,726 in 1926. In 1924 the number of accidents reported was 26,988.

There were 253 fatal cases, involving compensation amounting to $371,330 besides medical benefits of $8,053 and funeral expenses of $19,086. In 217 cases total dependents survived, in 4 there were partial dependents, while in 32 cases there was no dependency. This compares with 109 fatal cases in 1924, which involved compensation in the amount of $175,672, medical benefits of $4,687 and funeral expenses of $10,677.

Textile industries were responsible for the largest number of accidents, with construction second and sawmilling and lumbering third. The largest number of fatal cases occurred in sawmilling and lumbering, with construction second and textiles third.

Though the law provides for seven days' waiting time, 34 cases of temporary disability of less than one week were regarded as compensable; 3,291 caused disability for over one to two weeks, and 3,409 from over two to three weeks. Of 12,259 cases of temporary total disability, 10 continued for over 44 weeks. Medical cost in the temporary total disability cases exceeded the compensation benefits, being $317,618 as against $280,373. There were 1,140 cases of loss of and of loss of use of members. Of these, 76 were cases of loss of eye, 71 of loss of arm, besides 4 of loss of both arms or of one hand and one arm, 41 of loss of hand, 81 of loss of leg, and 29 of loss of foot.

Family Endowment in New South Wales

THE passage of the New South Wales child or family endowment act was noted in the Labor Review for August, 1927 (p. 32), but the text was not at that time available. The English Ministry of Labor Gazette, in its issue for July, 1927, presents the following summary of this legislation:

The family endowment act, 1927, which was passed at the end of March last, provides for the payment to mothers in certain circumstances of an allowance at the rate of five shillings a week for each child, for the maintenance, training and advancement of children under 14 years of age. Allowances may be continued up to the age of 16 years in the case of children incapacitated from earning a living by reason of a physical or mental defect.

Various conditions must be satisfied before the allowance becomes payable, the chief of which are:

(*a*) At the date on which the claim to an allowance is made the mother must be resident in New South Wales and have had her home there for the two years immediately preceding the date of the claim.

(*b*) Claims can be considered only in respect of children who have been resident for not less than two years in New South Wales, or, if below the age of 2 years, were born in that State.

(*c*) Allowances are not generally payable in respect of illegitimate children, nor in cases where the mother is already in receipt of a pension under the widows' pension act, 1925.

(*d*) Children of an alien father, an Asiatic father, or of an aboriginal native of Africa, the Pacific Islands, or New Zealand, are excluded from benefit, unless born in Australia.

(*e*) Where the total family income, as defined in the act, in the 12 months preceding the date of the claim exceeds the amount of the living wage for one year based on the requirements of a man and wife without children plus £13 for each child under 14 years, no allowance is payable.

(*f*) In cases where the payment of the full endowment would increase the family income beyond the limiting qualifying income, such part of the endowment shall be paid as will bring the total family income up to the qualifying limit.

A further act, the finance (family endowment tax) act, 1927, provides that employers shall pay into a newly constituted family endowment fund amounts equal to 3 per cent of their total wages bill, and from this fund the family allowances will be paid.

The family endowment act will come into operation on a date to be fixed by the governor, but in any case not until after the declaration of the living wage for a man and wife without children has been made by the Industrial Commission of New South Wales. This declaration, according to the provisions of the industrial arbitration (living wage declaration) act, 1927, must be made not later than the end of September, 1927. Previously the living wage has been based on a man, wife and two children.

Widows', Orphans', and Old-Age Contributory Pensions in Scotland

THE annual report of the Scottish Board of Health for the year 1926 contains an account of the work done in Scotland under the contributory pensions act during the first year after its coming into force. Three groups claimed benefits under it. First, were the pre-act claims put in by those who on January 4, 1926, were orphan children, or widows with at least one child under 14. For these, the contributory principle had been waived, and they were entitled to benefits regardless of whether or not any contributions had been made on their behalf. Second, were the claims for the post-act widows and orphans, those who had been bereft after the coming into force of the act. For this group the contributory principle had been modified. The law requires at least 104 contributions by the deceased person on whose insurance the claim is founded before a claim can be regarded as valid, but for the first two years insurance and contributions made under the national health insurance act before the introduction of the pension act are regarded as validating a claim.

As a class, widows' and orphans' pensions awarded before the payment of 104 contributions after the commencement of the pensions act will therefore be only partly contributory, in the sense that, as a rule, full pensions-qualifying contributions will not have been paid, and title will be dependent partially on pre-act health insurance contributions. The pensions granted in 1926 were obviously less contributory than noncontributory.

A third group of claims dealt with during the year concerned pensions to persons over 70, in regard to which the act made some important modifications in the earlier practice. Widows of men who on January 4, 1926, were over 70 and therefore could not become contributors under the new act are entitled to pensions provided they have a child or stepchild of the husband under 14 years of age. Obviously, this condition is seldom apt to be fulfilled, and the group of widows affected is small. More important are the regulations concerning those aged 70.

From July 2, 1926, the act granted to all insured persons then over 70 and to their wives, the right to old-age pension free from the means test. The concession is extended also to persons who attain age 70 before January 2, 1928. The main qualifying condition is simple, requiring insurance under the national insurance act only from April 29, 1925, when the contributory pensions bill was introduced into the House of Commons, to July 2, 1926, or, if later, the date when the insured person attains the age of 70. Easy conditions as to residence and last employment complete the requirements of qualification. When a woman claims in right of her husband's insurance he only need satisfy the conditions.

Pre-Act Claims

A VIGOROUS campaign had been made during 1925 to spread information as to the coming into force of the act, and by the time the first payment of pensions was due, January 5, 1926, claims had been put in and passed upon so numerously that orders were issued for the payment of approximately 12,800 pensions. Except for about 500, these were all pensions for widows entitled, in view of the additional allowance for children, to a minimum weekly payment of 15s. By December 31, a total of 23,132 claims in respect of pre-act

widows and orphans had been received, of which only 65 were still undecided. The number of pensions awarded was 18,204, of which 15,919 were for widows and 2,285 for orphans.

Five thousand one hundred and forty-two claims had been rejected, 54 per cent of them because the widow claimants had no child and 29 per cent because the occupation of the deceased husband was outside the scope of national insurance; 379 claims for orphans' pension had been disallowed, and it is regrettable that many of these failed simply because no information was obtainable in regard to the parents, often entirely unknown. Three hundred and forty-six pre-act claims had been withdrawn or superseded.

Post-Act Widows' and Orphans' Claims

DURING the year a total of 5,978 post-act claims were received, of which 5,827 were for widows' and 151 for orphans' pensions. By December 31, 1926, 4,604 widows' pensions had been awarded, and 103 claims in respect of orphan children, involving pensions for 164 children, had been allowed. The claims which were disallowed formed less than 10 per cent of the total number presented.

Pensions for Persons Over 70

AS IN the case of the pre-act widows' pensions, a number of applications for the over-70 pension were received and on file when this part of the act became effective, on July 2, 1926. By December 31, a total of 30,007 claims had been received; of these, 9,895 did not conform to the conditions of the contributory pensions act, and were accordingly referred to local pension committees for investigation as to their validity under the earlier acts. A number were awaiting decision, and 16,959 had been approved and pensions had accordingly been awarded.

Fully 15,000 of the pensions awarded were new pensions. A little more than 1,200 claims for pension at the full rate had been granted in favor of pensioners who were previously in receipt of pension at a reduced rate because of their means. Of the large body of persons in receipt of full-rate pension subject to the means test, only some 700 or thereby had elected to apply, by virtue of their insurance, to have their pensions made payable free from the conditions as to means.

Finances of the Scheme

DURING the year £790,036 was spent in the payment of widows' and orphans' pensions; payment of old-age pensions without the test of means between July 2 and December 31 took £171,000, and the expense of inaugurating and administering the scheme, including the preliminary work done in 1925, came to £86,824. Receipts from contributions during the year amounted to £2,017,067.

After repayment of an advance of £20,000 made from the civil contingencies fund to meet the initial costs, there was at the end of the year an excess of receipts over expenditures amounting to £1,140,207.

The report explains carefully that these figures can not be taken as indicative of the future liabilities of the system.

For years to come there will be a greatly increasing liability on the pensions account in respect of widows' and orphans' pensions. The account has yet to feel also the burden of the immense liability that will be created by the introduction in January, 1928, of the new category of pensions for persons between 65 and 70. * * *

Neither would it be sound to regard the administration costs as an index of the future cost of working. The inauguration of an entirely new scheme necessarily involves outlays of a nonrecurring kind, and the administration expenses should show a relative diminution in future. The cost of bringing the scheme into operation and of administration up to December, 1926, was equivalent to 9.14 per cent of the expenditure on all pensions awarded and to 4.3 per cent of the contribution income in 1926, an income which, it must be remembered, was very much lower than it would have been but for the coal stoppage and the attendant widespread unemployment.

Report of South African Old-Age Pensions Commission[1]

IN FEBRUARY, 1926, the South African Government appointed a commission of five, known as the Old Age Pensions and Social Insurance Commission, which has recently published its first report, dealing with the subject of old-age pensions. It recommends a system of noncontributory pensions for Europeans and colored persons who have been British subjects for five years and ordinarily resident in the Union for 15 out of the 20 years immediately preceding the date of their application. The pension should begin at 65. The maximum amount should be 10 shillings a week, and this should be reduced in proportion to the recipient's income, no pension being allowed to those with an income of £52 or over per annum. Invalidity pensions should be granted at the same rate and on the same basis to persons between 61 and 65 years of age who are totally and permanently disabled and who have been resident in the Union for at least five years. It is calculated that the following number of persons will be eligible for old-age and invalidity pensions:

	Old age	Invalidity
Europeans	15, 518	8, 360
Colored	12, 580	7, 386
Asiatics	1, 557	1, 742
Total	29, 655	17, 488

On the basis of conditions in 1926, it is estimated that the first cost of the scheme would be £1,225,718, subject to an annual increase of between £30,000 and £40,000 for each year which elapses before the scheme is introduced.

One member of the commission, while agreeing with the general recommendations, proposed a pension of £1 a week to men at the age of 65 and to women at 60.

[1] Union of South Africa. Department of Labor. The Social and Industrial Review, June, 1927, p. 544.

LABOR ORGANIZATIONS AND CONGRESSES

Proceedings of the Fifth Pan American Labor Congress

THE Pan American Labor Congress held in Washington, D. C., July 18–23, was the fifth such congress. The Pan American Federation of Labor was organized mainly through the influence of the American Federation of Labor at the first congress, held at Laredo, Tex., in November, 1918. Succeeding congresses were held in 1919, 1921, and 1924.

The organization grew out of the desire to bring the organized working people of Pan America into "closer harmony and unity." It has done much during the short period of its existence to promote closer relations, sympathy, and understanding among the workers of the Pan American countries.

At the recent congress delegates were present representing organized labor in Colombia, Cuba, Dominican Republic, Guatemala, Mexico, Nicaragua, Panama, Peru, Porto Rico, Salvador, United States, and Venezuela. Messages were received from a number of other affiliated countries which for financial or other reasons were unable to send delegates.

In his address of welcome President William Green stressed the altruistic purposes of the organization:

> We are interested in raising the standard of life and living among working people. We wish to encourage the workers represented in the Pan American Federation of Labor to mobilize and develop their economic strength so that it may be intelligently and constructively used in furthering their general common welfare in the interest of the men, women and children dependent upon the working people of all these countries. In this respect we differ from most Pan American organizations. Most of them are formed for the purpose of promoting commercial enterprises, for the purpose of exercising financial and corporate power in an attempt to exploit the resources of not only the Latin-American nations but the United States as well.

The Pan American Federation of Labor, he pointed out, stands for the economic freedom of the workers, for the right to organize into trade-unions, for civic and political freedom, for freedom of speech and of the press, for the right of every nation to work out its own destiny, "free from molestation by any other nation," and for the peaceful settlement of disputes between countries.

The report of the executive council gave in detail an account of the activities of the federation in regard to various labor matters that have come before it, such as the alleged murders of wage earners in Cuba, the grave situation in Nicaragua, in Venezuela, etc. The question of Mexican immigration into the United States was taken up and resulted in the formation of a commission appointed by the American Federation of Labor and the Mexican Federation of Labor to consider means whereby "the causes for complaint that may exist on either or both sides of the border" may be eliminated. The emigration of Mexicans from their country into the United States brings

problems for both countries, the influx of unskilled, low-paid labor tending to depress the wages and living conditions of American workers, while at the same time it drains Mexico of the workers she needs to develop the country.

The efforts of the executive council of the Pan American Federation of Labor to improve the conditions of the workers or to remedy injustices in such countries as Cuba, Nicaragua, and Venezuela were recited. Labor conditions in Venezuela were characterized as "unbearable."

Somewhat better conditions are reported from Ecuador. It is said that the new government is doing a little more for the wage earners, as it has created a Minister of Social Welfare and Labor and has offered guaranties to the citizens. The belief is expressed in reports received by President Green that when a normal constitutional situation is inaugurated in Ecuador the workers would be guaranteed an opportunity to organize to protect their interest and work for the welfare of all the people.

The National Labor Federation of Trade Unions has been formed in Argentina which bars as members communistic or anarchistic groups.

Luis N. Morones, president of the Mexican Federation of Labor and Minister of Commerce, Labor, and Industry of Mexico, warned the delegates not to use the congress as the "clearing house for all the ills and ailments" of the countries represented by them or to expect it to solve problems "entirely within the province of their own government or their own local or national movements." "But this does not mean that the workers in various countries where sufficient organization does not prevail can not bring their grievances to the Pan American Federation of Labor, which will do all it can to bring about the sought-for results. What the Pan American Federation of Labor is trying to do is to strengthen weak organizations, to encourage the formation of them in countries where there are none."

Though several resolutions of a general or even political nature were passed, the congress confined itself mainly to economic or workers' problems. Even those not of a purely labor nature—such as one deploring the exploitation of the workers in Venezuela and the violation of their constitutional rights during a period of some 19 years, extending the moral support of the federation to the Venezuelan workers, and authorizing the executive board to do what it can in reestablishing those rights and in securing amnesty for those imprisoned for political offenses—were passed on the ground that in all cases of political upheaval or suppression of rights it is the workers, poor and defenseless, who suffer most.

Labor Resolutions

IN GENERAL the resolutions introduced by the various delegations dealt with conditions in their own country. A number of general resolutions were, however, introduced. Thus, the representatives from Panama were successful in securing the adoption of a resolution reading as follows:

Whereas employers of labor of the several Pan American countries have resorted to the practice of recruiting workers in other countries than their own upon promises and assurances of profitable employment without guaranty of permanency of employment and without thought or consideration for the well-being of such workers or the harm done to workers of the countries for which they have been recruited; and

Whereas this practice tends to create strife and friction amongst the workers of the several Pan American countries, besides misleading and doing irreparable harm to workers so recruited; Therefore be it

Resolved, That the Pan American Federation of Labor calls upon the several Pan American Governments and labor movements to give immediate consideration and to take whatever action may be necessary to so regulate the employment of workers of one country to another as will prevent the exploitation of workers herein referred to, that will require proper and adequate guaranty for all promises made and agreements of employment thus entered into and as will avoid such recruited workers serving the purpose of lowering the standards of workers in the countries to which they may go and where the standards are of a higher order; be it further

Resolved, That the Pan American labor movements be urged to cooperate with one another and through the Pan American Federation of Labor to keep the respective labor movements continually informed of economic and industrial conditions prevailing in their respective countries, to the end that trade-union effort may contribute its full share in preventing a condition of international employment of labor that is of great harm to all workers and that tends to divide instead of unite the workers of all Pan America.

Four resolutions introduced by the Peruvian delegation and accepted by the congress (1) declared the congress's approval of labor departments under the government and urged the creation of such offices by Latin-American Governments where they do not already exist; (2) urged that the governments of the respective countries appoint labor attachés to their embassies in other countries; (3) provided for the exchange of labor information among the Latin-American countries through the Pan American Federation of Labor; and (4) provided for the appointment by the federation of a commission to make a study of wages in all the affiliated countries in order to determine what would be a proper minimum wage for each country, having due regard for working and living conditions. A resolution along the same line, introduced by the Mexican delegation, reaffirmed a resolution of a preceding congress that a commission should be sent to the various Latin-American countries to study labor conditions and to lend all possible aid in organizing the workers of those countries.

The congress passed the following resolution brought in by the Cuban delegates:

Whereas the countries of Latin-America have opened their doors to foreign capital, giving them all kinds of facilities, guaranties and opportunities for profit, and

Whereas foreign capital should not be any more an instrument of exploitation of the workingmen in our countries of America; Therefore be it

Resolved, First, that it is the feeling of this congress that the foreign corporations should employ in all their works and positions within the country where they develop their activities, the workingmen and natives of the same, as much as possible and prepare them when necessary to lend their services, and perform the manual, mechanical, technical or any other kind of work in such corporations; second, the congress declares that the exclusion of the natives from the employment or work in the foreign corporations, using instead imported workingmen, should be discouraged because it is a true injustice, creates social conflicts and resentment on the part of the wronged countries, all of which is prejudicial to the interests of the working classes and the good relations among the peoples.

The Guatemalan delegates recommended the foundation of a Pan American people's bank, ownership of whose shares should be limited to workingmen of the Pan American countries, voting to be on the basis of one man one vote. It was decided, however, that further study was necessary before taking such action and the matter was therefore referred to a committee to report to the next congress.

Among the labor resolutions dealing with particular countries were the following, introduced in all cases by the delegates from the country named:

Cuba.—A resolution, referred to the executive board, pointed out that Cuban workingmen are not prevented from organizing "while their activities have the character and aim of favoring the labor conditions, civilizing industrial, social, and economic reforms, when they do not employ practices and procedures against the public order, or the institutions of the government." Another, adopted by the congress, promised the aid of the federation in organizing the workers in Cuba. The executive board was also directed to use its influence toward securing for Cuban workers in mercantile and industrial establishments the 8-hour day already in force for public employees.

Dominican Republic.—Two resolutions were passed, one of which pointed out that while no obstacles had been interposed to the development of the trade-union movement in that country, neither had any protective legislation for workers been enacted, in spite of "persistent requests" for such legislation. The resolution therefore urged upon the Dominican Government the early enactment and enforcement of legislation on the following points:

1. The establishment of the 8-hour day for employees of the national government, the municipal governments, and those engaged in public works.
2. Establishment of a minimum salary.
3. Abolition of payment by scrip paper in the sugar factories and in other industries.
4. Establishment of vocational courses in the primary urban schools, and agricultural courses in the rural schools.
5. Compulsory attendance for illiterate adults in night schools.
6. Establishment of trade and art schools.
7. Enactment of a workmen's compensation act.
8. Establishment by law of free hospitals for the use of the poor people unable to avail themselves of private hospital care and attention.
9. Encouraging and developing a system of land holding and of land transference by inheritance or otherwise, so that there may be prevented the holding of the lands of the Dominican Republic in the hands of a few and that a full and free opportunity may be accorded to the great mass of citizens of that country to acquire title to land and thus free themselves from serfdom to large landowners.

In support of this measure, Manuel Pazos, one of the delegates from the Dominican Republic, stated that the trade-union movement of that country feels that with proper legislation it can solve its own problems. There is no radical labor movement in that country; the organized workers are federated into one conservative body—the Dominican Federation of Labor—with 12 provincial branches and 20 local unions. The problems of labor in that country are intimately connected with those of immigration. At present, however, organized labor has no official channel of communication with the government. For these reasons the delegation urged upon the congress its second resolution, which was passed by the congress, that the President of that country be requested to create in his cabinet a department of labor and immigration.

Panama.—Protesting against the conditions of native employment in the Canal Zone, a delegate from Panama pointed out that besides the Americans employed in the Canal Zone there were 15,000 workers of other nationalities but only some 1,500 of these were natives of Panama. The natives, he said, include capable mechanics of all kinds, but they are nevertheless excluded from the best jobs.

The congress directed that the Metal-Trades Union of the Canal Zone be requested to "make the necessary arrangements and agreements with the Labor Federation of the Republic of Panama in order to give occupation to efficient and capable native workmen in the different kinds of work carried out within the said Panama Canal Zone, under the same wages and labor conditions under which all other workers are employed, using for the purpose the services of the Labor Bureau established by the Government of Panama for the handling of such matters."

Porto Rico.—The congress (1) favored the idea of organization of labor unions into regional federations by trades, and (2) recommended the passage of legislation enabling the "continued progressive development" of Porto Rico.

General Trade-Union Progress and Condition of the Workers

THE report of the resolutions committee commented upon the fact that progress in trade-union organization had been made in many Latin-American countries. Such progress, it was pointed out, must be largely the work of each country but the Pan American Federation is ready at all times to lend such assistance as it can. An effort is to be made to have a representative of the federation in each affiliated country.

Argentina.—So far, the federation has been unable to secure the affiliation of the organized labor movement of Argentina. This the report ascribes to the division among the workers themselves in that country.

Guatemala.—Early in 1926 a law was passed making it a crime to strike. This law was later repealed, and Delegate Tribouiller from that country stated that the present law provides only that 15 days' notice of a strike must be given. The labor office is now largely administered by two wage earners, and steady, though slow, progress is being made. Good labor laws have been secured. They are about to amend their constitution and labor has been considering the advisability of endeavoring to have the rights of labor defined in the constitution.

Peru.—Delegate Casstéll of Peru stated that, as far as his country was concerned, the laws are good and wages are higher than they have ever been.

Venezuela.—The report of the resolutions committee pointed out that the federation has been unable to obtain first-hand information concerning labor conditions in Venezuela, and remarked that the secrecy prevailing would suggest that there was something to be hidden. Two Venezuelan delegates were present at the congress, but neither of them had just come from that country. Other delegates about to set forth from Venezuela sent word that "inconveniences at the last moment" prevented their leaving Venezuela to attend the congress. One of the delegates present from that country described tortures which he stated had been inflicted upon Venezuelan workers during recent years and declared that the people were denied all personal and civil rights. The report of the officers recommended that the executive board be directed to continue its efforts to determine the true state of affairs in that country.

Officers, and Next Meeting

THE following were reelected as officers of the Pan American Federation of Labor: William Green, president; Luis N. Morones, vice president; Santiago Iglesias, secretary; and Mathew Woll, treasurer.

The next congress will be held in Havana, Cuba.

Financial Reorganization of Brotherhood of Locomotive Engineers [1]

THE fifth triennial convention of the Brotherhood of Locomotive Engineers was held in Cleveland, June 6 to July 22, 1927.

This brotherhood has been one of the most prominent proponents of the idea that the trade-union movement should widen its interests in the direction of financial and commercial enterprises of various sorts. Beginning with the establishment of its bank at Cleveland in 1920, the brotherhood undertook, in rapid succession, the establishment of the Brotherhood Investment Co. and labor banks in Philadelphia; Hammond, Ind.; Three Forks, Mont.; Spokane, Wash.; Boston; Portland, Oreg.; Seattle and Tacoma, Wash.; and San Francisco. It acquired an interest in the Empire Trust Co. and the Equitable Building, both in New York, as well as stock in the Coal River Collieries Co. The Brotherhood Investment Co. is reported to have established a number of corporations for the selling of securities. In 1923 the brotherhood established a fire insurance company. Among the fields entered by the union was that of land development, the organization acquiring a large tract of land in Florida which it has been transforming into the city of Venice. Two large office buildings in Cleveland were erected and owned by the organization.

The 1927 convention was confronted with the problem of the continuance of this policy, since some of the enterprises had met with difficulties. Thus, the collapse of the real estate boom in Florida slowed up the brotherhood's development work in Venice; business and building conditions in Cleveland rendered one of the office buildings unprofitable, etc.

A drastic reorganization of the union machinery was made by the 1927 convention. The offices of president and first and second vice presidents were abolished and the plan of organization formerly in effect was reverted to, i. e., the leadership of the organization is to be vested in a grand chief engineer who will direct all the brotherhood's financial activities, assisted by an advisory board of three trustees, and all subject to the supervision of a committee of nine. The trustees will handle the brotherhood's investments but must make frequent reports to the committee, which also is vested with authority to remove the trustees if this seems necessary.

It was brought out at the convention that the difficulty with the financial affairs lay in the fact that although there were plenty of

[1] Data are from Labor (the organ of the railroad brotherhoods), Washington, D. C., issues of July 9, 16, 23, and 30, 1927; The Garment Worker, July 29, 1927; and Railway Age, Aug. 6, 1927.

assets, these are "frozen"; i. e., so tied up as not to be readily convertible into cash. In order to tide over until the investments can be realized upon, the delegates passed a resolution levying upon each of the approximately 88,000 members of the brotherhood an assessment of $5 per month for the next two years. This was later modified somewhat, the trustees being authorized to issue 100,000 certificates of indebtedness of $100 each, bearing interest at 4 per cent. "If the members purchase all these certificates within 60 days, the trustees will have $10,000,000 cash in hand, and it will not be necessary to order an assessment."

Trade-Union Movement in India

UNDER this title a study of Indian trade-unions has recently been published by N. M. Joshi, who has himself taken an active part in furthering the movement. The possible field for trade-unionism in India is large. Apart from agricultural workers and domestic servants, it is estimated that there are 21,600,000 wage earners; including those two classes, 49,100,000. But since these millions are spread over all India, often working in small groups or in almost inaccessible regions, it is admitted that their organization would present much difficulty and that results may be obtained more quickly by confining the initial efforts to workers on organized plantations and in organized industries. Of these, there are some 3,700,000, omitting all State employees and domestic servants.

Origin and Present Extent of the Movement

UP TO 1918 the trade-union movement can scarcely be said to have existed in India. There was a so-called printers' union in Calcutta, dating from 1905, the postal workers had some organizations, and other associations of workers were formed and existed for a time, but it is questionable whether any of these, except the first mentioned, could be described as a trade-union. In 1918 the Indian Seamen's Union was organized at Calcutta, and the Madras Labor Union was started among the mill workers of that city. In 1919 and 1920 a number of other associations were formed, among them unions of textile workers, railway employees, steel and mine workers, and port employees. The movement in its present form may be said to have begun in the period 1918–1920.

Three circumstances favored the growth of unions at that time. The cost of living was rising rapidly, and wages were not keeping pace with it, which naturally led to dissatisfaction and strikes. The formation of unions was frequently connected with a strike. Some of the so-called unions were little more than strike committees and speedily disappeared after the immediate trouble had been adjusted, but some became permanent organizations. A second helpful influence was the establishment of the International Labor Conference, which spread among its supporters the idea of the necessity of organizing labor and coordinating the organizations of a country, so that they might make themselves felt in the international body.

A third factor was the enthusiasm attending the all-India movement, a political movement which made itself felt far beyond the bounds of politics.

The progress of the movement was slowed down by the industrial depression which overtook India as well as the rest of the world, but it is still gaining ground as the old unions increase in strength and influence. As yet, the trade-union membership is relatively small. There are a number of associations among Government employees, especially among the postmen, telegraphists, and telegraph peons, the total membership being estimated at about 50,000. Unions of workers on railways and in other forms of transportation have members to the number of 75,000. Textile workers are organized to the number of about 32,000, and 6,000 printers, 9,000 steel workers, and 1,500 miners are included in unions. There are a number of miscellaneous unions, with rather uncertain membership.

To sum up, the result of labor organizing work during the last seven years is that, excluding the Government employees' organizations with a membership of 50,000, there are about 100 trade-unions in India with a membership of about 146,000.

Character and Position of the Unions

THE Indian unions are nearly all industrial rather than craft organizations. This is a natural development, arising from the fact that the union often originated in a local effort to improve conditions for a large number of workers under a common employer. For the most part they are strictly local in character, and it is doubtful whether they will ever become national bodies, though some kind of loose federation is probable.

The activities of the unions are mainly confined to trying to secure redress of grievances by making representations to the employers. A few have started death benefit funds, but none have as yet even made a beginning toward paying sickness, unemployment, or superannuation benefits. It is doubtful whether they will ever undertake these activities, since there is a growing opinion that such benefits should be provided by the State. Several weekly and monthly magazines are published by different unions, and the All-India Trade Union Bulletin gives regular reviews of the trade-union activities of the whole country.

These journals from their very nature restrict themselves to voicing forth grievances of the class of workers they represent. They hardly deal with the general labor questions and the principles and theories of the problem and its solution.

It will be seen that the picture presented is of a movement as yet rather weak and diffuse, with no strong central organization. The All-India Trade Union Congress attempts to coordinate and bind together the different unions, but it works against heavy difficulties. The greatest difficulty in the way of organizing the workers, according to Mr. Joshi, is their illiteracy and general ignorance. Where not even 10 per cent of the people can read, "the difficulties for propaganda of any kind are patent, and there is no method of making people realize their true condition and the necessity of improving it." Then, too, the workers, ignorant and subject to exploitation from all sides, are suspicious and hard to reach. Another difficulty arises from the low wages and extreme poverty of the people. In all coun-

tries the skilled and well-paid workers are the first to organize, and this class is small in India.

The attitude of the Government toward labor unions is on the whole neutral. The attitude of employers varies from friendly cooperation to strong opposition. Frequently employers object to letting their employees be represented by paid officials, or try indirect methods of discouraging organization, or protest against the unions taking up individual cases of injustice or grievance. In a few cases an attempt has been made to start company unions as a competitor to the unions the employees had already formed, or to prevent them from organizing on their own initiative. Also, a complaint is made that in India, as in other countries, welfare work is sometimes undertaken as a means of undermining the union or preventing its formation.

TRAINING AND PLACEMENT OF THE HANDICAPPED

Industrial Aid for the Blind in Indiana

DURING the fiscal year ended September 30, 1926, 101 apprentices and employees received vocational training or employment in the industrial departments of the Indiana Board of Industrial Aid for the Blind, according to the annual report of its executive secretary for that period. Of this number 43 were men and 58 women. Many of them have developed into efficient workers and are at present employed by the institution or have obtained jobs elsewhere. In the year under review 19,295 dresses or aprons were made by the garment department and 182,532 brooms were manufactured. The combined sales for the year for the several departments totaled $106,617.88. The minimum wage in the broom shop and garment department was 20 cents an hour, while the average wage in the broom department was 28.7 cents an hour.

The board's field agents paid 1,509 calls on blind persons in their homes. Of these calls, 852 were for investigation, 544 for instruction, and 113 were social. The report emphasizes the importance of prompt contact with newly blinded adults, as they are usually depressed and do not know how to proceed in the matter of rehabilitating themselves. Through the good offices of home teachers the interest of the great majority of such persons can be aroused and they learn to equip themselves to take their place again in the community.

The establishment of the blind in home industries is a notable feature of the board's work. Already 54 looms have been placed in homes and almost all of these home workers are successful. In addition to giving instruction to the blind, the teachers also interest the community in the blind weavers and their work.

In custom work, patrons supply the material to be woven into carpets and rugs and pay for the work performed. In other cases rugs are manufactured to be sold. Teachers frequently are able to supplement the industrial work of their blind students with other employment, for example, selling sandwiches in factories. The blind who are making brooms in their homes are said to be doing a good business.

The board's institution has also been buying raw materials and allowing the blind workers to repurchase such materials at cost. This practice has been of considerable assistance and is of growing importance.

The field agents are successful in their cooperation with other social service organizations. Through such cooperation many blind persons have been accorded expert medical attention, hospitalization, and other forms of relief. There is an increasing demand by existing agencies for the assistance and cooperation of the board's field agents.

There are 2,244 names of blind persons in Indiana on the board's register, this number including only the persons with whom the board's field agents have made contact. Many of these persons are too old to do remunerative work. A large percentage of them have accumulated enough to take care of themselves, but there are others who must depend on relatives or relief associations. The board's field agents have paid special attention to the latter cases and have cooperated with relief organizations by interesting such bodies in these indigent and aged blind. Almost all of the younger and able-bodied blind are wage earners or are carrying on businesses of their own.

A statement of the income and expenditures of the board for the fiscal year ending September 30, 1926, is given below:

INCOME AND EXPENDITURES OF INDIANA BOARD OF INDUSTRIAL AID FOR THE BLIND, 1926

Fund	Amount available during year	Expended during year	Balance	
			Covered into the State treasury	Available for further use
Industrial and educational aid	$25,000.00	$25,000.00		
Balance of receipts and earnings, 1925	8,169.55	8,169.55		
Receipts and earnings accruing from workshops, etc.	105,864.99	91,844.79		$14,020.20
Driveway	1,000.00	565.56	$434.44	
Total	140,034.54	125,579.90	434.44	14,020.20

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States, July, 1927

STRIKES and lockouts in the United States beginning in the month of July, 1927, in so far as reports thereof have been received by the bureau, are shown in this article. Disputes involving fewer than six workers and those lasting less than one day have been omitted where information on this point is reported.

In presenting these figures, it is important to note that the bureau has no machinery for the prompt and full reporting of strikes and lockouts, but depends largely upon newspapers, trade journals, and labor periodicals for the preliminary reports of disputes. These preliminary reports are then followed up by correspondence, and any necessary revision is made. For the reasons mentioned the data here presented do not pretend to be absolutely complete or fully accurate. It is believed, however, that practically all of the more significant strikes and lockouts are recorded, and that the information presented is sufficiently accurate to give a fair picture of the situation in the United States in the matter of strikes and lockouts.

The Bureau of Labor Statistics solicits the cooperation of employers, labor organizations, and other interested parties in making this compilation of industrial disputes as comprehensive and as accurate as possible.

Strikes and Lockouts Beginning in July, 1927

THE table following shows the number of strikes and lockouts beginning in July, 1927, in comparison with May and June, and also the number of persons involved, to the extent that reports on this point have been received.

STRIKES AND LOCKOUTS BEGINNING IN MAY, JUNE, AND JULY, 1927

Month	Number of strikes and lockouts [1]	Disputes in which number of employees directly involved is known [1]		
		Number of strikes and lockouts	Number of employees involved	Average number of employees per dispute
May, 1927	114	93	20,621	222
June, 1927	75	63	19,398	308
July, 1927 [2]	62	42	32,876	783

[1] Excluding those involving fewer than six persons.

[2] Data given are subject to revision.

Classification of Strikes and Lockouts by Industries and by Number of Persons Involved

THE statement below shows the distribution of the reported strikes and lockouts beginning in July, 1927, by industries or occupations:

	Number of disputes
Building trades	16
Chauffeurs and teamsters	2
Clothing industry	16
Theater and motion-pictures	2
Printing and publishing	2
Mining, coal	9
Metal trades	2
Textile industry	3
Miscellaneous	10
Total	62

In so far as information is available, the disputes beginning in July, 1927, classified by number of workers directly involved, are as follows:

	Number of disputes
6 and under 20 workers	6
20 and under 100 workers	19
100 and under 500 workers	6
500 and under 1,000 workers	6
1,000 and under 5,000 workers	3
5,000 and over	2
Total	42

Principal Strikes and Lockouts Beginning in July, 1927

CLEANERS and dyers, New Jersey.—A successful strike of about 800 cleaners and dyers in New Jersey continued from July 15 to July 21. This strike was for the "union shop" and was announced as state-wide.

Coal miners, Pennsylvania.—The No. 9 colliery of the Lehigh & Wilkesbarre Coal Co., at Sugar Notch, was affected by a strike of 879 miners on July 5. The men were "dissatisfied with new mine cars on account of suspicion that they were not of the same capacity as the old type." They "returned to work on own accord" July 6.

Coal miners, Pennsylvania.—A suspension of coal mining in the central Pennsylvania field, involving 15,000 miners, began on July 1, because of the refusal of the operators to continue the Jacksonville scale pending the negotiation of a new agreement. (See notes in August Review on bituminous coal strike, under "Principal strikes and lockouts continuing into June, 1927.")

Building-trades workers, Maryland.—A recurrence of the old jurisdictional dispute between the Bricklayers, Masons, and Plasterers' International Union of America and the Operative Plasterers and Cement Finishers' International Association occurred on July 12, when approximately 6,000 building-trades workers, members of some 18 locals comprising the Allied Building Trades Council of Baltimore,

suspended construction work because of differences as to the right of "bricklayers" to set artificial stone, instead of "plasterers." "We are striking in support of the plasterers," said their spokesman, Mr. Bieretz, "and in support of the decisions of the National Board of Jurisdictional Awards."

On the other hand the secretary of the bricklayers' local explained that the trouble dated back to the split from the bricklayers' international by the plasterers some years ago; that there were still as many plasterers in the bricklayers' organization as there are in the newly formed operative plasterers' organization; and that on the particular job which caused the break in Baltimore the work was being done by marble masons and not bricklayers. "It is a marble setters' job and has to be done with marble setters' tools. The opposition claims that because the plaster casts came backed in burlap, it was a plasterers' job. We contend that the burlap merely was camouflage, that it is not essential to the work and has to be discarded before the work is finished."

According to press reports the ending of this strike was announced on July 22 by Mr. Bieretz, with the statement that all men would return to work "on fair jobs" Monday morning. This announcement followed the receipt of a letter from the president of the building-trades department of the American Federation of Labor, indorsing the council's support of the plasterers in their dispute with the bricklayers, but suggesting that out of "consideration for the building public" the men return to work on jobs where the decision which caused the dispute is not being violated. The announcement was taken to mean that work would be resumed July 25 on all jobs where the members of the council were striking, as no bricklayers in Baltimore were then engaged on artificial-stone work which the plasterers contend is theirs under a decision of the National Board of Jurisdictional Awards.

Tank-wagon drivers and filling-station attendants, Chicago, Ill.—Following unsuccessful negotiations with the Sinclair Refining Co. for a $15 per month wage increase for tank-wagon drivers and a $10 per month increase for filling-station attendants, their employees were called out on strike by Chauffeurs, Teamsters, and Drivers' Union No. 705, on the morning of July 8.

The afternoon of the same day the Standard Oil Co., Texas Co., Roxana Petroleum Co., Apex Motor Fuel Co., and several other smaller companies locked out their employees, thus making almost a complete tie-up of both filling-station and tank-supply service, and affecting about 3,000 employees throughout the city and suburban districts.

A meeting of union officials and officials of the several companies during the evening of July 8 failed to bring about an agreement. However, a meeting called for the morning of July 9 brought about a compromise agreement of $7.50 per month increase for tank-wagon drivers and $5 per month for filling-station attendants. The final agreement was reached about 2 o'clock in the afternoon and by 4 o'clock conditions began to become normal.

The wage scales agreed to were: Tank-wagon drivers, $182.50; station attendants, first month, $120, second and third months, $130, and thereafter, $145.

Principal Strikes and Lockouts Continuing into July, 1927

BITUMINOUS coal strike.—The suspension of April 1 continues. No developments of great importance have occurred since our last report. Individual operators here and there have resumed operations under the Jacksonville scale, and some disorders have been reported in Ohio, following attempts of certain operators to resume operations with nonunion men. Governor Donahey has sought to bring the contending elements together for a settlement, but so far without success. On August 2, he sent messages by telegraph to the governors of Illinois and Indiana asking them to join him in requesting a reconvening of the interstate conference of miners and operators. His telegram read:

> Coal strike situation in Ohio is reaching the point where public welfare demands breaking of the deadlock between the United Mine Workers and operators. Am told similar conditions prevail in Indiana and Illinois. Will you join me in requesting reconvening of the interstate conference of miners and operators? Please wire if you are willing to join in concerted effort on part of Indiana, Illinois, and Ohio to have controversy reopened in the hope of settlement on economic basis.

The two governors replied promising such support as they may be able to give the plan.

Governor Donahey also requested the cooperation of the Governor of Pennsylvania, and on August 5 issued a "proclamation on the coal dispute," which reads as follows:

> The coal industry of Ohio, one of the largest and most important in the State, has been at a standstill since last spring when a wage scale agreement expired and operators and miners were unable to agree upon a new scale.
>
> The miners made demands which the operators pronounced exorbitant and refused to meet. The operators made proposals which the miners termed inadequate and rejected. The present strike and complete paralysis of the coal industry of the State is the result.
>
> The cessation of pay rolls, regardless of the cause, is always disastrous. When the workers of a community lose their buying power, their families and children suffer, merchants and the business men in turn suffer, and general distress follows. Conditions in the mining regions of Ohio have been growing steadily worse and have reached an acute state. The approach of winter holds for all a distressing prospect.
>
> As the chief executive of Ohio, I have deemed it my duty to take steps to bring about a renewal of wage discussions between operators and miners. The governors of other States in the central competitive fields have joined in requesting a reconvening of the interstate conference of miners and operators which ended futilely last spring at Miami, Fla. Such a reconvention has been called for August 15 in the city of Toledo, Ohio.
>
> Citizens of Ohio everywhere should lend their influence in whatever manner possible in demanding that this conference settle the differences at issue and thereby restore prosperity to the industry and to the citizens generally throughout our State.
>
> Not merely are the livelihoods of the miners involved, and the profits of the operators, and the rights of both, but the welfare of the people of Ohio and of the entire central competitive field. Our entire citizenry hopes that renewed deliberations of the representatives of the two contending sides will be productive of an agreement on the basis of sound economics, without which neither side can prosper or long exist.
>
> I call upon the mine operators to exercise restraint in the conduct of their operations and to avoid intimidating gestures which might invite riot.
>
> I call upon the miners and their leaders to exercise self-control and to avoid actions which might lead to disorder.
>
> It is the duty of both operators and miners to abstain from threats or actions tending to provoke disturbances which might result in loss of life and the destruction of property. Ours is a government of law and not of men. Our laws must

be observed and a course of action in defiance of law will bring down upon those responsible the merited condemnation of the people of our State.

Sheriffs and all police officers having jurisdiction are directed to invoke every precaution and resource to preserve peace and order. The immediate burden of police authority in the present situation falls upon the sheriffs of the mining counties. Where emergencies exist, or are in prospect, sheriffs must make ample plans to augment their forces to sufficient numbers to meet the situation.

The Governor of Ohio has no police authority other than the military arm of the government, the Ohio National Guard, which may be employed only when civil authority has failed. The founders of our State and Nation wisely made the exercise of military authority a means of last resort, to be invoked only when civil government has been overwhelmed.

The civil officers of the State will be held strictly accountable for the preservation of order. When the actual necessity arises I shall not hesitate to use the military forces at my command to restore peace, but, until that time comes, the responsibility must rest upon the civil agencies established by the constitution and laws of our State.

Now, therefore, I, Vic Donahey, Governor of Ohio, do hereby issue this proclamation appealing to the operators and miners of Ohio to compromise their differences, calling upon all in police authority to do their full duty, and urging all the citizens of Ohio to lend helpful hand and counsel in an effort to restore the coal industry of our Commonwealth.

(Signed) VIC DONAHEY.

According to press reports a temporary restraining order against the union organization and its officials, affecting certain proposed operations in southeastern Ohio, was granted on August 15 in the Federal district court at Columbus. The order applies to six mines owned by four coal companies, employing normally 2,500 men, and is effective for 10 days.

The mines at which union miners are restrained from interfering with persons attempting to go to work are said to be Provident Mine No. 1, near St. Clairsville; Fair Point Mine in Belmont County; Dun Glen Mine in Harrison and Jefferson counties, all operated by the Clarkson Coal Mining Co.; Webb Mine, near Bellaire, operated by the Monroe Coal Co.; Rose Mine, near Cadiz, operated by the Boomer Coke & Coal Co., and Florence Mine, near Martin's Ferry, operated by the Atlantic Contract Co.

The United Mine Workers of America and their officials, District No. 6 of the United Mine Workers and its officials, Subdistrict No. 5 and its officials, 59 local mine unions and their officers and committees, and 70 persons as individuals, were made defendants in the restraining order.

Among the officials named are John L. Lewis, president of the national organization, and Lee Hall, district president.

The applicants contended that the union mine workers in the eastern Ohio fields are acting in restraint of interstate commerce by preventing reopening of the mines, which are now working at only 5 per cent of their capacity.

Press reports are to the effect that the governor's proposal is welcomed by the miners but is regarded with disfavor by the operators, who have in fact virtually rejected it.

Barbers, New York.—The strike of about 1,300 union barbers in upper Broadway and Washington Heights section of New York City for a wage increase, which began June 15, terminated successfully July 27.

Laborers and hod carriers, Rhode Island.—The strike of laborers and hod carriers in Providence, Pawtucket, and Central Falls which began June 1 is still pending.

Carpenters, Rhode Island.—The strike of carpenters in Providence and vicinity, for a wage increase from $1.10 an hour to $1.25 an hour, which began June 1, ended on July 25 to the satisfaction of both sides. A compromise rate of $1.17½ an hour was agreed upon. The settlement of the strike was brought about through the good offices of the mayor of Providence.

Conciliation Work of the Department of Labor in July, 1927

By Hugh L. Kerwin, Director of Conciliation

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 38 labor disputes during July, 1927. These disputes affected a known total of 23,880 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly affected.

On August 1, 1927, there were 40 strikes before the department for settlement, and, in addition 6 controversies which had not reached the strike stage. The total number of cases pending was 46.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, JULY, 1927

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Pa.					1927	1927		
Commercial telegraphers, New York City.	Threatened strike.	Telegraphers	Renewal of agreement	Adjusted. Award of arbitrator accepted.	July 1	July 30	425	------
Photo-engravers, Portland, Oreg.	Strike	Engravers	Failure to agree on arbitration method.	Adjusted. Agreed on method of arbitration; agreement on terms.	June 27	July 1	15	------
Tirrell Bros., Phillipsburg, N. J.	---do---	Weavers	Asked 1 cent per yard increase.	Pending. Weavers may return if they so desire.	June 8	----------	60	250
Miners, Sugar Notch, Pa.	---do---	Miners	Use of larger coal cars	Adjusted. District board to fix terms.	July 5	July 7	952	8
Gunning Silk Co., Easton, Pa.	---do---	Silk weavers	Asked restoration of wage cut of 1926.	Pending	---do---	----------	70	------
Castleton Hotel, New Castle, Pa.	---do---	Carpenters	Jurisdiction of lath and plaster work.	Adjusted. One carpenter and 1 lather to work together.	July 1	July 8	15	80
Independent Telephone Co., Everett, Wash.	---do---	Linemen	Discharges; alleged discrimination.	Pending	(1)	----------	(1)	------
Oil-tank drivers, Chicago, Ill.	---do---	Tank drivers	Asked $15 per month increase.	Adjusted. Allowed $7.50 per month increase; attendants $5 per month increase.	July 8	July 9	3,000	------
Boston Manufacturing Co., Waltham, Mass.	---do---	Weavers	Working conditions	Unclassified. Settled without aid of commissioner.	June 21	July 1	22	40
Chicopee Falls Manufacturing Co., Chicopee Falls, Mass.	---do---	Loom fixers	Union recognition and working conditions.	Adjusted. Returned without change.	---do---	July 29	34	550
L. Candee Rubber Footwear Co., New Haven, Conn.	---do---	Employees	Wage cut and change of work.	Unclassified. Returned without change before arrival of commissioner.	June 24	July 5	64	------
Building trades, Baltimore, Md.	---do---	Bricklayers and plasterers.	Jurisdiction of artificial-stone work.	Adjusted. Plasterers awarded the work.	July 12	July 25	6,000	------
Shoe workers, Brooklyn, N. Y.	---do---	Shoe workers	Discharges; asked union recognition.	Adjusted. Workers allowed to return when needed.	June 23	July 5	22	40
Cloak and dress makers, New York City.	---do---	Garment workers	Violation of union shop	Pending	(1)	----------	(1)	------
Electrical workers, Boston, Mass.	---do---	Electrical workers	Interpretation of agreement.	Adjusted. Satisfactory interpretation of agreement.	June 24	July 6	78	136
National Association of Manufacturers, New York City.	Lockout	Cap and hat makers	Failure of companies to comply with national agreement.	Pending	July 10	----------	500	------
Hat and cap makers, Philadelphia	Strike	---do---	(1)	---do---	(1)	----------	(1)	------
Danville Structural Steel Co., Danville, Pa.	---do---	Structural-steel workers.	Wage cut of 10 per cent	Adjusted. Accepted 5 per cent wage cut and returned.	July 12	July 25	200	17
First National Bank, Carbondale, Pa.	---do---	Laborers	Asked 8-hour day and wage increase.	Adjusted. Part returned with small increases.	---do---	July 14	30	------
Bourne Fuller Co., Cleveland, Ohio.	---do---	Iron, steel, and tin workers.	Company announced open-shop policy.	Adjusted. Company refused to renew union contract.	July 1	July 22	9	------

[1] Not reported.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, JULY 1927—Con.

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
					1927	1927		
Marietta Holloware & Enamel Co., Marietta, Pa.	Strike	Molders	Asked 20 per cent wage increase.	Adjusted. Open shop effective. Foundry closed at present.	July 1	July 21	20	
Easton Foundry & Manufacturing Co., Easton, Pa.	Lockout	do	Molders discharged; others hired at lower wages.	do	June 10	July 22	20	
Gorham Silver Co., Providence	Strike	Polishers and buffers	Wages cut to $0.60 per hour.	Pending	June 5		(1)	
United States Gypsum Co., Oakfield, N. Y.	do	Miners and paper-mill workers.	Wages cut from 5 to 25 cents per hour.	Adjusted. Cut reduced to 2½ cents per hour; 8-hour day restored.	(1)	July 22	1,200	
Dallas Morning News and Dallas Evening Journal, Dallas, Tex.	do	Mailers	Asked union recognition	Unable to adjust	June 1		18	28
Aluminum Co. of America, Niagara Falls, N. Y.	do	Potmen	Asked $5 per day instead of bonus system.	Adjusted. Many returned on company's terms; others will return when called.	July 22	Aug. 4	300	150
Miners, West Nanticoke, Pa	do	Miners	Wages and objection to size of coal car.	Pending	July 25		400	5
Artcraft Upholstery Co., Boston, Mass.	Controversy	Upholsterers	Violation of trade agreement	Pending. Arbitration in progress	do		50	260
Shell Oil Co., California	do	Oil workers	Renewal of memorandum of terms.	Adjusted. Memorandum concluded with slight changes in working conditions.	July 1	July 28	5,500	2,000
Steel haulers, Chicago, Ill	Strike	Haulers	(1)	Unclassified. Commissioner not engaged on the case.	(1)		200	
Hod carriers, Asbury Park, N. J	do	Hod carriers	Asked $1 per day wage increase—$8 per day.	Pending. Many nonunion men are now employed.	July 20		136	
Building trades, Asbury Park, N. J.	do	Building crafts	Struck in sympathy with hod carriers.	do	do		525	
Bamberger Store Building, Newark, N. J.	do	Iron workers	Jurisdiction and working conditions.	do	do		(1)	
Plumbers and helpers, six towns, South Bergen, N. J.	do	Plumbers and helpers	Asked increase from $12 to $13 and $7 to $8 per day.	Adjusted. Returned to work; arbitration in progress.	June 20		40	
Lavelle Foundry Co., Anderson, Ind.	do	Molders	Refusal to work with nonunion men.	do	Apr. 1		187	30
Berk Clothing Co., Los Angeles, Calif.	Controversy	Garment workers	Open shop declared; discharges.	Unclassified. Returned without change before commissioner's arrival.	July 10		12	
Majestic Overjeter Slipper Co., New York City.	Strike	Shoe workers	Violation of agreement	Unclassified. Renewed agreement before commissioner's arrival.	July 25		22	
Chicago Machinery Movers & Erectors' Assn., Chicago, Ill.	do	Teamsters and helpers	Teamsters asked $1 per day increase.	Adjusted. Allowed $1 per week increase; receive from $35 to $43 per week for driving.	do	July 25	160	
Total							20,286	3,594

[1] Not reported.

NEGRO IN INDUSTRY

Labor Conference on the Negro in Industry

AN INSTITUTE on the negro in industry was held at Brookwood College, May 19 and 20, 1927. The discussions were based on an address by A. L. Harris, of the anthropological department of Columbia University, on the history of negro labor in the United States, and an address by Charles S. Johnson, of the National Urban League, on negro workers in labor unions. The Brookwood Review of June-July, 1927, contains a brief résumé of this conference.

There are 65,000 negroes among the 1,500,000 organized workers covered by a recent survey of the National Urban League. Mr. Johnson stated, however, that if complete returns had been secured the number of negroes would probably have been nearer 100,000. Of the number for which returns were made, 14,500 are in negro unions in New York City. The remaining unionists are for the most part longshoremen, hod carriers, musicians, garment workers, and hotel and restaurant employees. Although the number of trade-unions which exclude negroes by constitutional provision or ritual is not large, there are 43,800 negro workers so barred. Among these unions are those of the boiler makers, switchmen, railway telegraphers, machinists, blacksmiths, railway carmen, mail clerks, and the four railroad brotherhoods.

It was stated at the conference that other unions, without having set up any constitutional barriers against negroes, do, as a matter of fact, discriminate against them. For example, the electrical workers, whose membership is 142,000, include only 334 negroes, although there are 13,000 negroes in the trade. There are 6,000 negroes in the plasterers' trade and only 100 in the plasterers' union, and not one of the 3,500 negro plumbers holds membership in the plumbers' union. The carpenters and painters are also included in the list of trade-unions discriminating against negroes.

Certain unions have separate locals for negroes; for example, cooks and waiters, hotel and restaurant employees, laundry workers, barbers, textile workers, and musicians. Other trade-unions, such as the hod carriers and longshoremen, admit colored members to either mixed or separate locals.

Mr. Harris also called attention to the practice of molders and carmen, who organize separate locals for colored men but, according to Mr. Harris, allow them to be represented only by white delegates on the joint boards or central labor unions.

In the judgment of B. W. Bagnall, of the National Association for the Advancement of Colored People, the industrial discrimination against negroes is more economic than social.

Racial hatred is not nearly so deep rooted as we commonly think. When work is plentiful and there is a shortage of workers, both white bosses and white

employees conveniently forget their prejudices and willingly accept colored workers on a job. When work is slack, however, the "racial" prejudice revives in full force. Negroes are actual or potential competitors for jobs; hence the white workers are anxious to keep them at as great a disadvantage as possible by barring them from union affiliations and from advancement. It has undeniably been to the advantage of the white workers to do this in the past. It probably will not be in the future.

Even lynchings are based on economic factors. A couple of lynchings in a community is enough to quell any chance aggressiveness on the part of negroes and make them entirely willing to work for whatever wages they can get. The educational policy of the South which shuts negro children off with less than elementary education is based upon the poor white's fear of competition from the educated negro. The ballot is kept from him for the same reason.

Norman Thomas, of the League for Industrial Democracy, called attention to the increasing trend of negroes toward industrial work, and to the fact that they must be reckoned with by organized labor. He emphasized the necessity for their unionization.

The president of the dining-car employees' union, R. B. Lemus, reviewed the progress made by his organization in securing higher wages, shorter hours, and better working conditions.

Reports were also made on the Pullman porters' union which at present has "70 per cent of porters and maids on all railways of the country on its list."

Mr. Randolph advocated negroes doing their own organizing. He said in part:

> True, as matters stand, negroes are excluded from many organizations, and little effort is apparently being made to organize them even as Federal unions, directly affiliated with the American Federation of Labor. Yet it must be borne in mind that the A. F. of L. is not primarily an organizing body; moreover, under its present craft structure, there is no place where unskilled workers (as negroes are to a large extent) fit in.
>
> The negro should organize himself, because with organization he will be better able to break down the barriers and prejudice of white workers against him than he will without it, and even the question of union jurisdiction can be more effectively settled by a group of negro workers if they are organized.

He also suggested the federation of existing unions of negro workers such as the railway brakemen, hostlers, Pullman porters, and dining-car employees. He felt that such action would result in their common advancement and stimulate the unionization of colored workers in the industries. A central agency might also be utilized as a clearing house for statistical information and method of organization.

E. Franklin Frazier, former director of the Atlanta School for Social Work, spoke on "The new negro we really need." This needed type is not at all "the new negro as he is sometimes self-styled in Harlem and other large city sections—artistic, cosmopolitan, sophisticated, cynical, individualistic." These manifestations of newness, Doctor Frazier holds, "have their root in individual striving for 'culture' and have little significance for the mass of negroes."

According to this speaker, the new negro should have his outlook on life secularized, the curricula of his schools changed, and his economic position in American life recognized. In this connection it was declared that the negro "is predominantly an agricultural and industrial worker and only incidentally a professional and business man."

Leadership, however, is the principal need, Doctor Frazier said—leadership with a broad view of the interests of the masses and a

knowledge of existing economic values. There are already evidences of leadership among negro workers, but in rural districts the preacher is still the outstanding figure.

The middle-class negroes, in Doctor Frazier's judgment, are very much like the white middle class. Negro business men and negro newspapers exploit those of their own color in the same way that white capitalists take advantage of their white workers.

Cooperative buying and selling were suggested as a natural and desirable development "among class-conscious negroes."

Doctor Frazier was also of the opinion that negroes should support and control their own churches and subsidize their own leaders.

WAGES AND HOURS OF LABOR

Changes in Union Scales of Wages and Hours of Labor, 1913 to 1927[1]

THE Bureau of Labor Statistics collects annually, as of May 15, information concerning the union scales of wages and hours of labor in the principal time-work trades in 66 of the principal cities of the United States. A full compilation of the figures for 1927 is now in progress.

In this article an abridged compilation is made of the 1927 data for the following trades in 40 localities with comparative figures for preceding years back to 1913, in so far as effective scales were found for the several years. Data for 1914 and 1915 are omitted for lack of space, but figures for those years may be obtained by referring to the September, 1925, issue of the Labor Review.

Bricklayers.
Building laborers.
Carpenters.
Cement finishers.
Compositors: Book and job.
Compositors, daywork: Newspaper.
Electrotypers: Finishers.
Electrotypers: Molders.
Granite cutters, inside.
Hod carriers.
Inside wiremen.
Painters.
Plasterers.
Plasterers' laborers.
Plumbers.
Sheet-metal workers.
Stonecutters.
Structural-iron workers.
Typesetting - machine operators: Book and job.
Typesetting - machine operators, daywork: Newspaper.

The union scale represents the minimum rate and the maximum hours agreed upon between the unions and the employers. Quite often, however, a higher rate was paid to some of the union members. Variable higher rates were paid to many or possibly all of the members in some of the occupations in a few cities.

The union scale generally represents the prevailing rate for the trade in the locality, even though all persons in the trade may not be members of the union.

In cases where scales have been revised since May 15, 1927, and made retroactive to that date or earlier the changes have been included in the tabulation, in so far as information has been received.

Two or more quotations of rates and hours are shown for some occupations in some cities. Such quotations indicate that there were two or more agreements with different employers and possibly made also by different unions, or for subclassifications of a specific occupation, such as building laborers.

[1] A brief summary of the changes from 1907 to 1926 and also the average money rate per hour for each trade, all cities combined, as of May, 1926, and May, 1925, are published in the November, 1926, issue.

Bricklayers

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Atlanta	45.0	50.0	60.0	60.0	70.0	112.5	100.0	100.0	112.5	112.5 / 125.0	112.5 / 125.0	140.0	140.0	53	50	50	50	44	44	44	44	44	44	44	44	44
Baltimore	62.5	70.0	75.0	75.0	100.0	125.0	125.0	125.0	150.0	150.0	150.0	162.5	162.5	[4] 45	[4] 45	44	44	[4] 45	[4] 45	[4] 45	[4] 45	44	44	44	44	44
Birmingham	70.0	70.0	70.0	87.5	87.5	100.0	100.0	100.0	112.5	125.0	137.5	150.0	150.0	[5] 44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	65.0	65.0	70.0	80.0	80.0	100.0	100.0	100.0	125.0	125.0	125.0	140.0	140.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	65.0	65.0	70.0	75.0	85.0	100.0	100.0	100.0	125.0	125.0	137.5	137.5	150.0	48	[1] 48	[6] 44	[6] 44	[6] 44	[6] 44	44	44	44	44	44	44	44
Charleston, S.C.	40.0	40.0	40.0	50.6	75.0	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	[7] 53	[7] 53	[7] 53	48	48	48	48	48	48	48	44	48	44
Chicago	75.0	75.0	75.0	75.0	87.5	125.0	125.0	110.0	[9] 110.0	[9] 125.0	150.0	150.0	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	65.0	70.0	75.0	90.0	90.0	125.0	125.0	125.0	125.0	150.0	150.0	162.5	162.5	45	45	45	45	45	45	45	45	45	44	44	44	44
Cleveland	65.0	70.0	75.0	90.0	90.0	125.0	125.0	125.0	140.0	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	87.5	87.5	87.5	100.0	100.0	112.5	150.0	137.5	150.5	150.0	150.0	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	75.0	87.5	87.5	100.0	100.0	125.0	125.0	125.0	137.5	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	65.0	70.0	75.0	80.0	90.0	125.0	100.0	100.0	135.0	150.0	150.0	150.0	157.5	[11] 48	[13] 44	[13] 44	[13] 44	[13] 44	44	44	44	44	44	44	44	44
Fall River	55.0	60.0	65.0	75.0	85.0	115.0	115.0	95.0	110.0	110.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	75.0	75.0	75.0	85.0	85.0	125.0	115.0	115.0	135.0	150.0	150.0	150.0	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Jacksonville	62.5	62.5	62.5	62.5	75.0	87.5	100.0	87.5	87.5	100.0	125.0	150.0	150.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Kansas City, Mo	75.0	75.0	75.0	87.5	100.0	112.5	112.5	112.5	137.5	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	75.0	75.0	87.5	87.5	100.0	125.0	125.0	125.0	125.0	137.5	150.0	150.0	150.0	[14] 44	[14] 44	[14] 44	44	44	44	44	44	44	44	44	44	44
Los Angeles	75.0	62.5	62.5	75.0	87.5	125.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	65.0	65.0	70.0	75.0	85.0	115.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	55.0	60.0	65.0	75.0	90.0	112.5	112.5	112.5	112.5	150.0	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	75.0	75.0	82.5	87.5	87.5	125.0	112.5	112.5	125.0	150.0	150.0	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	67.5	67.5	72.5	72.5	90.0	125.0	100.0	100.0	125.0	125.0	125.0	125.0	140.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	65.0	70.0	75.0	75.0	87.5	125.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	48	[14] 44	[14] 44	[14] 44	44	44	44	44	44	44	44	44	44
Newark, N.J.	65.0	70.0	75.0	75.0	87.5	125.0	125.0	125.0	125.0	150.0	150.0	162.5	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	60.0	60.0	65.0	70.0	82.5	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44

[1] 44 hours per week, June to August, inclusive.
[4] 44½ hours per week, November to March, inclusive.
[5] 48 hours per week, October to December, inclusive.
[6] 48 hours per week, Nov. 16 to Mar. 15.
[7] Work 53 hours, paid for 54.
[8] Nominal rate. All received more; average, $1.50 per hour.
[9] Nominal rate. All received more; $1.50 to $1.75 per hour.
[11] 44 hours per week, October to April, inclusive.
[13] 48 hours per week, December to February, inclusive.
[14] 48 hours per week, October to April, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Bricklayers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
New Orleans	62.5	62.5	62.5	62.5	75.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	70.0	75.0	75.0	81.3	87.5	125.0	125.0	125.0	150.0	150.0	150.0	175.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	70.0	75.0	75.0	75.0	87.5	125.0	112.5	100.0	125.0	125.0	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	62.5	65.0	70.0	80.0	80.0	130.0	130.0	125.0	137.5	150.0	150.0	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Pittsburgh	70.0	70.0	75.0	75.0	90.0	112.5	150.0	130.0	130.0	140.0	155.0	162.5	162.5	44	44	44	44	44	44	44	[15] 44	44	44	44	44	44
Portland, Oreg.	75.0	75.5	75.0	87.5	100.0	125.0	125.0	112.5	125.0	125.0	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40
Providence	65.0	65.0	70.0	70.0	80.0	115.0	115.0	115.0	115.0	125.0	125.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	65.0	65.0	75.0	75.0	87.5	100.0	100.0	100.0	150.0	125.0	150.0	150.0	125.0	45	[16] 45	[16] 45	[16] 45	[16] 45	[16] 45	[16] 45	[16] 45	[16] 45	[16] 45	45	45	44
St. Louis	70.0	75.0	75.0	85.0	100.0	125.0	125.0	125.0	150.0	175.0	175.0	175.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	65.0	70.0	75.0	75.0	87.5	125.0	112.5	100.0	100.0	112.5	112.5	125.0	125.0	48	44	[16] 44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	75.0	80.0	87.5	87.5	100.0	125.0	112.5	112.5	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	87.5	87.5	87.5	100.0	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	60.0	65.0	70.0	75.0	75.0	112.5	125.0	125.0	137.5	150.0	150.0	150.0	150.0	[10] 44	[14] 44	44	44	44	44	44	44	44	44	44	44	44
Seattle	75.0	75.0	81.3	100.0	112.5	125.0	112.5	112.5	125.0	137.5	137.5	137.5	145.0	44	44	44	44	40	40	44	44	44	44	44	44	40
Washington	62.5	70.0	70.0	75.0	87.5	100.0	125.0	137.5	137.5	150.0	162.5	162.5	162.5	[17] 45	[17] 45	[17] 45	[17] 45	44	44	44	44	44	44	44	44	44
Building laborers																										
Boston	35.0	35.0	37.5	40.0	40.0	67.5 70.0	67.5 70.0	67.5 [18] 70.0	67.5 [18] 70.0	65.0	65.0	74.0	74.0	48	48	48	48	44	44	44	44	48	48	48	48	48
Chicago	40.0	42.5	45.0	50.0	57.5	100.0	100.0	72.5	72.5	72.5	82.5	87.5	90.0 105.0 120.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	20.0	25.0	30.0	35.0	40.0	45.0	50.0	40.0	45.0	52.5	55.0	58.0	60.0	60	50	50	50	50	50	50	50	50	50	50	50	50
Cleveland	------	31.3	40.0	55.0	57.5	87.5	87.5	57.5	87.5	87.5	87.5	87.5	87.5	-----	48	44	44	44	44	44	44	44	44	44	44	44
Detroit	------	30.0	40.0	------	65.0	75.0	60.0	50.0	60.0	60.0	60.0	60.0	60.0	-----	54	54	-----	44	44	44	44	49½	49½	44	44	44
Kansas City, Mo.	27.5	35.0	37.5	37.5	57.5	75.0	75.0	70.0	70.0	75.0	75.0	75.0	75.0	48	48	48	48	48	44	44	44	44	44	44	44	44
Los Angeles	34.4	34.4	34.4	43.8	50.0	62.5	62.5	62.5	62.5	62.5	62.5	75.0	75.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	27.9	22.2	22.2	30.0	35.0	50.0	40.0	40.0	50.0	50.0	50.0	50.0	50.0	48	54	54	50	50	44	44	44	44	44	44	44	44
Milwaukee	------	------	------	------	------	65.0	65.0	55.0	60.0	75.0	75.0	75.0	75.0	-----	-----	-----	-----	-----	44	44	44	44	44	44	44	44
Minneapolis	------	------	------	------	------	------	55.0	55.0	55.0	55.0	55.0	55.0	55.0	-----	-----	-----	-----	-----	-----	44	44	44	44	44	44	44
New York	22.5	25.0	30.0	40.5	40.5	75.0	60.0 81.3 87.5	60.0 81.3 87.5	75.0 81.3 87.5	81.3 100.0	81.3 100.0	105.0 117.5	90.6 115.0 126.0	48	44	44	44	48	48	44 48	44 48	44	44	44	44	44

Newark, N. J.												100.0	112.5	112.5													44	44	44
New Haven														75.0															44
Philadelphia														112.5															44
Pittsburgh	25.0	30.0	30.0	45.0	45.0	70.0	100.0 80.0	80.0 50.0	100.0 60.0	70.0	70.0	80.0	112.5 80.0	54	48	48	48	44	44	44	44	44	44	44	44	44
Portland, Oreg.	37.5	37.5	37.5	50.0	62.5	75.0	67.5	67.5	67.5	67.5	67.5	67.5	67.5	48	48	48	48	44	44	44	44	44	44	44	44	44
St. Louis	25.0	25.0	30.0	33.3 40.0	40.3 45.0	54.0 67.5	54.0 67.5	54.0 57.5	54.0 67.5	75.0	75.0	75.0	75.0 87.5	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul						61.3	61.3	55.0	50.0	55.0	55.0	55.0	55.0						49½	49½	49½	49½	49½	44	44	44
San Francisco	27.8	31.3	37.5	43.8	62.5	75.0	81.3	62.5	62.5	62.5	62.5	62.5	68.8	54	48	48	48	48	48	48	44	44	44	48	48	48
Scranton	25.0	30.0	30.0	30.0	50.0	58.5	70.0	60.0	60.0	70.0	70.0	70.0	70.0	54	48	48	48	48	48	48	48	48	48	48	48	48
Seattle	37.5	37.5	43.8	56.3	68.8	75.0	75.0	62.5	62.5	62.5	62.5	62.5	62.5 75.0	44	44	44	44	40	44	44	44	44	44	44	44	44 40

Carpenters

Atlanta	40.0	40.0	50.0	50.0	60.0	80.0	70.0	70.0	70.0	80.0	80.0	80.0	80.0	50	50	50	50	44	44	44	44	44	44	44	44	44
Baltimore	43.8	43.8	50.0	62.5	80.0	90.0	90.0	80.0	90.0	90.0	100.0	110.0	110.0	48	[19] 44	44	44	44	44	44	44	44	44	44	44	44
Birmingham	52.5	45.0	45.0	55.0	65.0	75.0	75.0	75.0	75.0	87.5	87.5	95.0	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Boston	50.0	57.0	60.0	65.0	75.0	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	44	[20] 44	[20] 44	40	40	40	40	40	44	44	44	44	44
Buffalo	50.0	50.0	62.5	70.0	70.0	100.0	87.5	87.5	100.0	112.5	112.5	112.5	112.5	48	[1] 48	44	44	44	44	44	44	44	44	44	44	44
Charleston, S.C	33.3	33.3	33.3	37.5 50.0	70.0	80.0	80.0	70.0	70.0	80.0	70.0	70.0 75.0	70.0 75.0	[7]53	[7] 53	[7] 53	48	48	48	48	48	44 48	44	48	48 44
Chicago	65.0	70.0	70.0	70.0	80.0	125.0	125.0	110.0	125.0	125.0	125.0	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	60.0	62.5	65.0	70.0	100.0	100.0	95.0	105.0	115.0	125.0	131.3	135.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½
Cleveland	50.0	60.0	70.0	80.0	85.0	125.0	125.0	104.0	125.0	125.0	125.0	125.0	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	55.0	60.0	62.5	62.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	60.0	60.0	70.0	75.0	87.5	112.5	112.5	100.0	112.5	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Detroit	50.0	50.0	60.0	60.0	80.0	100.0	85.0	85.0	115.0	115.0	115.0	115.0	115.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	42.0	48.0	50.0	62.5	75.0	100.0	100.0	85.0	95.0	95.0	95.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	50.0	55.0	57.5	60.0	75.0	100.0	92.5	92.5	92.5	97.5	110.0	110.0	110.0	44½	44	44½	44½	44½	44½	44½	44½	44	44½	44½	44	44½
Jacksonville	31.3	37.5	37.5	40.0 45.0	65.0	80.0	80.0	80.0	80.0	90.0	90.0	100.0	100.0	48	48	48	48	48	44	44	44	44	44	44	44	44
KansasCity, Mo	55.0	65.0	65.0	65.0	85.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	50.0	60.0	60.0	80.0	92.5	80.0	80.0	80.0	90.0	90.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	50.0	50.0	50.0	62.5	75.0	87.5	100.0	100.0	112.5	112.5	100.0	100.0	100.0	48	44	48	48	44	44	44	44	44	44	44	44	44
Louisville	45.0	45.0	50.0	60.0	60.0	80.0	80.0	80.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	40.0	40.0	50.0	60.0	60.0	100.0	90.0	90.0	90.0	100.0	100.0	100.0	100.0	48	48	44	44	44	44	44	44	44	44	44	44	44

[1] 44 hours per week, June to August, inclusive.
[7] Work 53 hours, paid for 54.
[19] 48 hours per week, September to April, inclusive.
[14] 48 hours per week, October to April, inclusive.
[15] 40 hours per week, July 1 to Sept. 7.
[16] 44½ hours per week, December to February, inclusive.
[17] 44½ hours per week, October to April, inclusive.
[18] Old scale; strike pending.
[19] 48 hours per week, November to March, inclusive.
[20] 40 hours per week, June to September, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Carpenters—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Memphis	50.0	50.0	55.0	65.0	75.0	100.0	75.0	75.0	75.0	87.5	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	50.0	50.0	56.3	56.3	70.0	100.0	85.0	85.0	95.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	50.0	55.0	60.0	75.0	100.0	100.0	80.0	80.0	90.0	----	----	100.0	44	44	44	44	44	44	44	44	44	44	----	----	44
Newark, N. J.	50.0	56.3	65.0	70.0	80.0	100.0	100.0	112.5	112.5	131.3	137.5	140.0	140.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	47.5	50.0	55.0	55.0	65.0	100.0	100.0	90.0	90.0	100.0	100.0	100.0	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	40.0	40.0	40.0	50.0	60.0	75.0	100.0	100.0	90.0	90.0	90.0	90.0	90.0	48	48	48	48	48	48	44	44	44	44	44	44	44
New York	62.5	62.5	68.8	68.8	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	50.0	50.0	57.5	60.0	75.0	112.5	101.3	90.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	55.0	60.0	70.0	80.0	112.5	112.5	90.0	112.5	112.5	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	55.0	62.5	71.0	71.0	80.0	90.0	125.0	100.0	120.0	137.5	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	50.0	50.0	56.3	75.0	86.0	100.0	90.0	90.0	100.0	100.0	100.0	100.0	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Providence	50.0	50.0	50.0	60.0	70.0	100.0	100.0	85.0	90.0	100.0	110.0	110.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	37.5	37.5	43.8	62.5	62.5	72.5	72.5	72.5	80.0	90.0	90.0	90.0	90.0	48	48	48	48	48	47	47	47	47	47	47	47	44
St. Louis	62.5	62.5	65.0	70.0	82.5	100.0	125.0	110.0	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	50.0	50.0	55.0	60.0	75.0	100.0	100.0	80.0	80.0	90.0	----	----	100.0	48	48	48	44	44	44	44	44	44	44	----	----	44
Salt Lake City	62.5	62.5	75.0	75.0	100.0	112.5	100.0	90.0	100.0	106.3	106.3	106.3	106.3	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	62.5	68.8	75.0	87.5	106.3	112.5	104.4	104.4	104.4	104.4	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	42.5	50.0	50.0	60.0	70.0	87.5	87.5	87.5	93.8	112.5	112.5	112.5	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	56.3	56.3	65.0	82.5	93.8	100.0	87.5	87.5	100.0	100.0	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Washington	50.0	55.0	62.5	62.5	87.5	95.0	105.0	105.0	112.5	112.5	112.5	112.5	125.0	44½	44½	44½	44½	44	44	44	44	44	44	44	44	44

Cement finishers

Atlanta	----	----	----	----	----	----	----	100.0	100.0	100.0	100.0	100.0	100.0	----	----	----	----	----	----	----	44	44	44	44	44	44
Baltimore	----	50.0	50.0	62.5	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	----	48	48	44	44	44	44	44	44	44	44	41	40
Birmingham	50.0	62.5	62.5	62.5	75.0	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	48	48	48	48	48	48	48	48	48	48	44	44	44
Boston	62.5	62.5	62.5	70.0	75.0	100.0	100.0	100.0	105.0	110.0	110.0	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	50.0	50.0	50.0	65.0	65.0	100.0	100.0	85.0	100.0	112.5	112.5	112.5	112.5	48	48	48	48	48	44	44	44	44	44	44	44	44
Chicago	65.0	65.0	67.5	75.0	80.0	125.0	125.0	110.0	110.0	125.0	125.0	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	50.0	55.0	57.5	60.0	90.0	90.0	87.5	97.5	107.5	117.5	123.8	127.5	50	50	50	50	50	44½	44½	44½	44½	44½	44½	44½	44½
Cleveland	60.0 50.0	60.0	65.0	77.5	80.0	90.0	125.0	104.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	50.0	62.5	62.5	62.5	87.5	100.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	48	48	48	48	48	48	48	48	48	48	48	48	48
Denver	68.8	----	75.0	75.0	87.5	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	44	----	44	44	44	44	44	44	44	44	44	44	44

Detroit	50.0	50.0	55.0	60.0	80.0	125.0	100.0	100.0	112.5	150.0	112.5	112.5	137.5	54	54	48	44	44	44	44	44	44	44	44	44	44	44	44
Fall River		60.0	65.0	75.0	85.0	115.0	115.0	95.0	110.0	110.0	125.0	125.0	125.0		44	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	50.0	57.5	60.0	62.5	70.0	90.0	100.0	90.0	95.0	105.0	105.0	105.0	110.0	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Jacksonville								87.5	100.0	100.0	125.0	125.0	125.0										44	44	44	44	44	44
Kansas City, Mo	62.5	65.0	65.0	75.0	87.5	107.5	107.5	100.0	100.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	55.6	55.6	75.0	75.0	87.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	54	54	54	[2] 44	[2] 44	44	44	44	44	44	44	44	44	44	44
Los Angeles	62.5	62.5	62.5			100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	48	48	48			44	44	44	44	44	44	44	44	44	44
Louisville	45.0	45.0		60.0	70.0	80.0	90.0	90.0	110.0	110.0	110.0	125.0	125.0	60	60		44	44	44	44	44	44	44	44	44	44	44	44
Manchester		60.0	60.0	75.0	90.0	112.5	112.5	112.5	112.5	150.0	137.5	137.5	137.5		44	44	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	50.0					87.5		100.0	100.0	112.5	112.5	112.5	112.5	54					44		44	44	44	44	44	44	44	44
Milwaukee	45.0	45.0	50.0	60.0	70.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis		50.0	55.0	55.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		48	48	48	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	62.5	70.0	75.0	75.0	87.5	125.0	125.0	125.0	125.0	150.0	150.0	162.5	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven		60.0	65.0	70.0	82.5	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5		44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans							100.0	100.0	100.0	100.0	100.0	112.5	112.5								45	45	45	45	44	44	44
New York	62.5	62.5	70.0	70.0	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha		62.5	62.5	62.5	75.0	112.5	100.0	100.0	100.0	112.5	112.5	112.5	112.5		44	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	45.0	50.0	55.0	65.0	72.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	49½	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh		50.0	56.3	75.0	75.0	82.5	112.5	87.5	112.5	125.0	125.0	135.0	135.0		44	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	62.5	62.5	62.5	87.5	87.5	100.0	90.0	90.0	100.0	102.5	112.5	112.5	112.5	48	48	44	44	44	44	44	44	44	44	44	44	40	40	
Providence		62.5	62.5	62.5	80.0	100.0	100.0	87.5	100.0	115.0	125.0	115.0	115.0		44	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond							87.5	87.5	125.0	125.0			100.0								44	44	44	44			44
St. Louis	60.0	62.5 / 65.0	62.5 / 65.0	75.0	82.5	125.0	125.0	100.0	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	50.0	60.0	60.0	60.0	75.0	100.0	100.0	80.0	100.0	100.0	100.0	100.0	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44	44	44
San Francisco	75.0	75.0	75.0	87.5	100.0	112.5	112.5	104.4	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton									125.0	150.0	150.0	150.0	150.0										44	44	44	44	44	44
Seattle	62.5	62.5	68.8	81.3	100.0	112.5	112.5	100.0	100.0	112.5	112.5	112.5	112.5	48	48	48	48	40	40	40	44	44	44	44	44	44	44	44
Washington		62.5	70.0	70.0	87.5	90.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5		44	44	44	44	44	44	44	44	44	44	44	44	44	44

Compositors: Book and job

Atlanta	34.4	37.5	37.5	37.5	43.8	57.5	75.0	80.0	80.0	80.0	80.0	80.0	100.0	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Baltimore	37.5	37.5	43.8	43.8	54.2	81.3	83.3	83.3	90.9	90.9	90.9	90.9	90.9	48	48	48	48	48	48	48	48	48	44	44	44	44	44	44
Birmingham	40.6	40.6	44.8	44.8	44.8	76.0	80.0	80.0	80.0	80.0	80.0	92.5	92.5	48	44	48	48	48	48	48	44	44	44	44	44	44	44	44
Boston	41.7	43.8	45.8	50.0	55.2	72.9	87.0	87.0	87.0	92.0	92.0	92.0	96.0	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Buffalo	39.6	41.7	43.8	45.8	59.4	71.9	83.3	90.9	90.9	90.9	90.9	100.0	100.0	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Charleston, S.C	33.3	33.3	37.5	37.5	37.5	37.5	98.9	98.9	90.9	84.1	90.9	84.1	84.1	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Chicago	46.9	50.0	50.0	57.3	75.0	95.8	106.0	106.0	110.0	115.9	115.9	115.9	122.7	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Cincinnati	40.6	43.8	46.9	46.9	51.0	75.0	104.5	104.5	104.5	109.1	109.1	109.1	113.6	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Cleveland	39.6	41.7	43.8	50.0	62.5	87.5	93.8	93.8	93.8	100.0	104.5	106.8	109.1	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Dallas	52.1	52.1	52.1	57.3	70.8	88.5	100.0	93.2	93.2	93.2	93.2	93.2	93.2	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44

[2] 48 hours per week, October to March, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Compositors: Book and job—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Denver	54.2	54.2	54.2	59.4	65.6	81.3	81.3	95.5	95.5	95.5	102.3	102.3	102.3	48	48	48	48	48	48	48	44	44	44	44	44	44
Detroit	38.5	45.8	50.0	54.7	72.9	92.7	96.9	105.0	105.0	105.0	105.0	110.0	115.0	48	48	48	48	48	48	48	44	44	44	44	44	44
Fall River	33.3	35.4	37.5	39.6	41.7	62.5	72.7	72.7	72.7	81.8	81.8	81.8	81.8	48	48	48	48	48	48	44	44	44	44	44	44	44
Indianapolis	43.8	45.8	45.8	52.1	54.2	75.0	100.0	92.7	95.5	95.5	98.0	100.0	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44
Jacksonville	37.5	43.8	43.8	43.8	52.1	75.0	81.8	81.8	81.8	81.8	81.8	98.9	98.9	48	48	48	48	48	48	44	44	44	44	44	44	44
Kansas City, Mo	41.7	43.8	45.8	50.0	54.2	72.9	84.4	84.4	88.6	92.0	94.3	96.6	98.9	48	48	48	48	48	48	48	48	44	44	44	44	44
Little Rock	37.5	41.7	43.8	43.8	43.8	72.9	72.9	70.0	70.0	70.0	85.2	96.6	96.6	48	48	48	48	48	48	48	44	44	44	44	44	44
Los Angeles	46.9	50.0	50.0	52.1	58.3	75.0	95.5	95.5	95.5	102.3	102.3	102.3	106.8	48	48	48	48	48	48	44	44	44	44	44	44	44
Louisville	37.5	39.6	39.6	43.8	45.8	45.8	79.2	79.0	79.0	79.0	------	------	79.0	48	48	48	48	48	48	48	44	44	44	44	------	44
Manchester	35.4	35.4	37.5	39.6	41.7	66.7	77.3	79.5	79.5	79.5	79.5	79.5	79.5	48	48	48	48	48	48	44	44	44	44	44	44	44
Memphis	40.0	45.0	47.1	48.1	55.4	93.8	93.8	82.3	82.3	82.3	80.0	80.0	81.8	48	48	48	48	48	48	48	44	44	44	44	44	44
Milwaukee	41.7	45.8	47.9	47.9	54.2	72.9	85.4	93.2	93.2	93.2	93.2	95.5	100.0	48	48	48	48	48	48	48	44	44	44	44	44	44
Minneapolis	43.8	43.8	45.8	45.8	54.0	87.5	87.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	48	48	48	48	44	44	44	44	44	44
Newark, N. J.	47.9	50.0	50.0	56.3	72.9	91.7	111.4	102.3	109.1	115.9	115.9	118.2	120.5	48	48	48	48	48	48	44	44	44	44	44	44	44
New Haven	40.6	40.6	40.6	44.8	45.8	58.3	58.3	86.4	86.4	86.4	86.4	86.4	86.4	48	48	48	48	48	48	48	44	44	44	44	44	44
New Orleans	43.8	43.8	43.8	43.8	50.0	71.9	71.9	78.4	78.4	78.4	78.4	78.4	78.4	48	48	48	48	48	48	48	44	44	44	44	44	44
New York	50.0	52.1	52.1	58.3	75.0	93.8	113.6	113.6	113.6	120.5	120.5	122.7	125.0	48	48	48	48	48	48	44	44	44	44	44	44	44
Omaha	37.5	45.8	46.9	53.1	68.8	87.5	93.2	93.2	93.2	93.2	93.2	93.2	100.0	48	48	48	48	48	48	44	44	44	44	44	44	44
Philadelphia	39.6	41.7	43.8	50.0	60.4	89.6	89.6	89.6	89.6	89.6	90.0	90.0	90.0	48	48	48	48	48	48	48	44	44	44	44	44	44
Pittsburgh	39.6	43.8	43.8	47.9	60.4	81.3	100.0	100.0	100.0	100.0	100.0	100.0	104.5	48	48	48	48	48	48	44	44	44	44	44	44	44
Portland, Oreg.	53.1	53.1	53.5	59.4	75.0	85.4	95.8	95.8	90.9	90.9	102.3	102.3	105.7	48	48	48	48	48	48	44	44	44	44	44	44	44
Providence	37.5	37.5	37.5	45.8	50.0	72.9	72.9	79.5	79.5	90.9	90.9	90.9	90.9	48	48	48	48	48	48	48	44	44	44	44	44	44
St. Louis	43.8	45.8	47.9	52.7	52.7	79.2	92.8	92.8	92.8	98.0	98.0	98.0	103.0	48	48	48	48	48	48	44	44	44	44	44	44	44
St. Paul	43.8	43.8	45.8	45.8	54.0	83.3	87.5	95.5	90.9	95.5	95.5	95.5	------	48	48	48	48	48	48	48	44	44	44	44	44	------
San Francisco	50.0	52.6	54.2	58.3	62.5	81.3	104.5	104.5	104.5	104.5	115.9	115.9	115.9	48	48	48	48	48	48	48	44	44	44	44	44	44
Scranton	43.8	43.8	47.9	47.9	52.1	71.9	77.1	85.2	90.9	90.9	100.0	100.0	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44
Seattle	53.1	53.1	56.3	59.4	75.0	87.5	93.8	93.8	93.8	93.8	93.8	93.8	100.0	48	48	48	48	48	48	44	44	44	44	44	44	44
Washington	40.0	43.8	47.9	50.0	62.5	83.3	90.9	90.9	90.9	90.9	90.9	90.9	100.0	48	48	[24] 48	[24] 48	[24] 48	[24] 48	44	44	44	44	44	44	44

Compositors, day work: Newspaper

Atlanta	43.8	43.8	43.8	50.0	60.6	63.8	91.0	86.5	86.5	93.8	93.8	100.0	100.0	48	48	48	48	48	48	48	48	48	48	48	48	48
Baltimore	50.0	50.5	51.9	51.9	65.5	93.3	93.3	95.5	95.5	106.8	106.8	110.2	110.2	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42
Birmingham	52.5	55.5	56.5	57.5	67.5	67.5	67.5	82.5	82.5	82.5	82.5	92.5	95.0	[26] 42	[26] 42	[26] 42	[26] 42	[26] 42	[26] 42	[26] 42	[25] 44	[25] 44	[25] 44	[25] 44	[25] 44	[25] 44
Boston	63.0	63.0	68.0	68.0	83.0	95.0	95.0	107.0	107.0	112.0	117.0	117.0	125.0	48	48	48	48	48	48	48	48	48	48	48	48	48
Buffalo	50.0	50.0	53.1	59.4	65.6	71.9	87.5	87.5	87.5	95.8	95.8	102.1	102.1													

Boston	63.0	63.0	68.0	68.0	83.0	95.0	95.0	107.0	107.0	112.0	117.0	117.0	125.0	[29] 42	[26] 42	[20] 42	[26] 42	[26] 42	[26] 42	[26] 42	[26] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42
Buffalo	50.0	50.0	53.1	59.4	65.6	71.9	87.5	87.5	87.5	95.8	95.8	102.1	102.1	48	48	48	48	48	48	48	48	48	44	44	44	44	44	44	44	44
Charleston, S.C.	33.3	33.3	42.9	42.9	42.9	42.9	90.6	90.6	83.3	83.3	83.3	83.3	83.3	48	48	[26] 42	[25] 42	[25] 42	[25] 42	48	48	48	48	48	48	48	48	48	48	48
Chicago	62.0	62.0	62.0	66.0	79.0	89.0	115.0	115.0	115.0	129.0	129.0	129.0	135.6	[27] 45	[27] 45	[27] 45	[25] 45	[25] 45	[25] 45	[25] 45	48	48	48	48	45	45	45	45	45	45
Cincinnati	52.1	56.3	56.3	56.3	87.5	107.3	107.3	107.3	113.3	113.3	113.8	113.8	113.8	[26] 47½	48	48	48	48	45	45	45	45	45	45	45	45	45	45	45	45
Cleveland	53.8	53.8	62.5	62.5	68.8	87.5	93.8	96.9	103.1	107.3	107.3	116.7	116.7	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Dallas	55.0	59.4	59.4	62.5	76.0	88.5	88.5	90.6	90.6	100.0	100.0	106.3	106.3	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Denver	63.3	63.3	63.3	72.7	72.7	97.8	97.8	93.3	93.3	103.3	103.3	103.3	103.3	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Detroit	55.0	55.0	60.5	60.5	74.5	87.0	97.0	97.0	97.0	113.0	113.0	120.0	125.0	48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	48	48	48	48	48	48	48	[30] 48	48	45
Fall River	37.5	43.8	44.8	45.8	49.0	75.0	79.2	79.2	79.2	87.5	87.5	87.5	87.5	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Indianapolis	50.0	50.0	56.3	56.3	60.4	81.3	93.8	89.6	100.0	100.0	100.0	104.2	104.3	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Jacksonville	37.5	46.9	52.1	52.1	65.6	83.3	83.3	83.3	83.3	83.3	89.6	100.0	100.0	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Kansas City, Mo	59.4	59.4	59.4	59.4	68.8	90.6	90.6	90.6	90.6	90.6	95.8	102.1	104.1	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Little Rock	47.9	50.0	52.1	52.1	62.5	72.9	83.3	83.3	83.3	83.3	84.4	84.4	84.4	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Los Angeles	62.5	64.4	66.7	66.7	75.6	86.7	86.7	101.1	101.1	107.8	------	------	114.0	45	45	45	45	45	45	45	45	45	45	45	------	------	------	------	------	45
Louisville	49.0	50.0	54.2	54.2	62.5	87.5	82.9	87.5	87.5	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Manchester	35.4	35.4	37.5	39.6	41.7	66.7	70.8	72.9	72.9	80.2	82.3	83.3	83.3	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Memphis	57.8	57.8	57.8	60.0	66.7	86.7	92.8	88.9	93.3	93.3	83.3	93.3	100.0	45	45	45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	48	45	45	45	45
Milwaukee	45.8	50.0	54.2	56.3	56.3	77.1	93.8	93.8	93.8	97.9	102.5	102.5	106.3	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Minneapolis	54.0	54.0	54.0	54.0	62.5	87.5	93.8	88.5	88.5	97.9	98.0	98.0	97.9	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Newark, N. J	60.9	60.9	63.0	69.6	76.1	89.1	110.9	110.9	110.9	110.9	119.6	121.7	130.4	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
New Haven	46.9	47.9	50.0	50.0	50.0	72.9	79.2	79.2	79.2	85.4	85.4	87.5	89.6	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
New York	66.7	66.7	66.7	71.1	96.7	122.2	122.2	122.2	122.2	128.9	133.3	133.3	140.0	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Omaha	50.0	53.1	53.1	53.1	68.8	87.5	87.5	87.5	87.5	90.6	90.6	90.6	96.9	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Philadelphia	41.7	41.7	41.7	50.0	66.7	81.3	79.2	79.2	79.2	87.5	87.5	87.5	91.3	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	46
Pittsburgh	55.0	60.0	61.0	65.0	77.0	87.5	111.8	111.8	118.9	121.1	121.1	125.6	126.7	48	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	48	46½	46½	45	45	45	45	45	45	45	45
Portland, Oreg	68.3	68.3	68.3	72.7	100.0	106.7	106.7	106.7	106.7	106.7	106.7	106.7	106.7	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Providence	47.9	50.0	50.0	52.1	66.7	87.5	100.0	95.8	95.8	104.2	104.2	104.2	108.3	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Richmond, Va	33.3	37.5	37.5	45.8	45.8	58.3	87.5	87.5	87.5	87.5	87.5	94.8	94.8	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
St. Louis	58.7	58.7	63.4	63.4	63.4	91.3	91.3	91.3	91.3	102.2	106.5	110.9	110.9	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
St. Paul	54.5	54.5	54.5	54.5	63.0	87.5	88.8	88.8	88.8	93.8	101.3	101.3	101.3	48	48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	[30] 48	48
Salt Lake City	62.5	62.5	62.5	62.5	71.9	87.5	87.5	96.9	96.9	96.9	104.3	104.3	104.3	48	48	48	48	48	48	48	48	48	48	48	46	46	46	46	46	46
San Francisco	64.4	69.0	69.0	68.9	75.6	93.3	107.8	107.8	107.8	107.8	115.6	115.6	115.6	45	42	42	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Scranton	47.9	47.9	52.1	52.1	60.4	81.3	87.5	87.5	95.8	95.8	104.2	110.4	112.5	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Seattle	75.0	75.0	78.6	78.6	100.0	114.3	114.3	114.3	114.3	121.4	121.4	121.4	123.2	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42
Washington	60.7	60.7	60.7	69.8	92.9	104.0	104.0	104.0	104.0	110.0	110.0	128.6	128.6	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42

[24] 44 hours per week for 3 months, June 1 and Sept. 30.
[25] Minimum; maximum, 8 hours per day.
[26] Actual hours worked, minimum, 6; maximum, 8 hours per day.
[27] Actual hours worked, minimum, 7; maximum, 8 hours per day.
[28] Work at 47½ hours, paid for 48.
[29] Maximum; minimum, 7 hours per day.
[30] Maximum; minimum, 45 hours per week.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Electrotypers: Finishers

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Atlanta	45.8	50.0	50.0	50.0	57.3	88.5	96.6	93.2	93.2	96.6	102.3	102.3	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44
Birmingham	50.0	50.0	50.0	50.0	50.0	72.9	89.8	89.8	96.6	96.6	96.6	102.3	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44
Boston	50.0	50.0	50.0	52.5	52.5	78.1	90.6	90.6	99.0	99.0	99.0	99.0	99.0	48	48	48	48	48	48	48	48	48	48	48	48	48
Buffalo	43.8	43.8	43.8	50.0	56.3	72.9	77.1	77.1	81.3	81.3	87.5	87.5	91.7	48	48	48	48	48	48	48	48	48	48	48	48	48
Chicago	49.0	52.1	56.3	58.3	77.1	104.2	113.7	108.0	129.5	134.1	138.6	140.9	140.9	48	48	48	48	48	48	44	44	44	44	44	44	44
Cincinnati	43.8	45.8	45.8	47.9	52.1	66.7	87.5	95.5	85.4	89.6	91.7	91.7	95.8	48	48	48	48	48	48	48	44	48	48	48	48	48
Cleveland	41.7	47.9	47.9	52.1	58.3	83.3	83.3	75.0	83.3	93.8	93.8	93.8	97.9	48	48	48	48	48	48	48	48	48	48	48	48	48
Dallas	37.5	37.5	37.5	43.8	65.6	72.9	72.9	------	------	------	113.6	113.6	113.6	48	48	48	48	48	48	48	------	------	------	44	44	44
Denver	43.8	43.8	47.9	47.9	54.2	62.5	75.0	75.0	75.0	90.9	90.9	90.9	90.9	48	48	48	48	48	48	44	44	44	44	44	44	44
Detroit	37.5	52.1	52.1	56.3	56.3	93.8	102.3	102.3	107.5	113.6	113.6	113.6	125.0	48	48	48	48	48	48	44	44	46½	44	44	44	44
Indianapolis	43.8	47.9	50.0	50.0	63.6	63.6	63.6	85.2	[31]100.0	95.5	95.5	95.5	95.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	43.8	46.9	50.0	50.0	62.5	90.6	89.6	89.6	89.6	100.0	104.5	104.5	104.5	48	48	48	48	48	48	48	48	48	46	44	44	44
Los Angeles	50.0	56.3	56.3	56.3	70.8	86.4	86.4	86.4	102.3	102.3	102.3	102.3	113.6	48	48	48	48	48	44	44	44	44	44	44	44	44
Louisville	------	------	------	------	------	------	------	------	------	------	73.9	102.3	102.3	------	------	------	------	------	------	------	------	------	------	44	44	44
Memphis	45.8	45.8	45.8	45.8	62.5	62.5	68.2	------	------	------	100.0	102.3	113.6	48	48	48	48	48	48	44	------	------	------	44	44	44
Milwaukee	43.8	43.8	50.0	50.0	56.3	75.0	81.3	81.3	81.3	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Minneapolis	36.1	45.8	50.0	50.0	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	54	48	48	48	48	48	48	48	48	48	48	48	48
Newark, N. J	------	------	------	------	75.0	109.1	134.1	134.1	134.1	140.9	140.9	140.9	140.9	------	------	------	------	44	44	44	44	44	44	44	44	44
New Haven	37.4	40.7	44.9	44.9	46.7	62.5	75.0	75.0	79.5	79.5	79.5	79.5	81.3	54	54	53½	53½	53½	48	48	48	48	48	48	48	48
New Orleans	------	40.0	40.0	40.0	55.0	88.9	90.9	90.9	------	------	90.9	102.3	102.3	------	45	[25] 45	[25] 45	[25] 45	[25] 45	44	44	------	------	44	44	44
New York	62.5	68.8	68.8	68.8	75.0	109.1	134.1	134.1	134.1	140.9	140.9	140.9	140.9	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	43.8	43.8	52.1	52.1	66.7	113.6	[32]102.3	[32]102.3	[33] 97.7	102.3	102.3	102.3	102.3	48	48	48	48	48	44	44	44	44	44	44	44	44
Philadelphia	41.7	50.0	52.1	64.2	70.0	103.1	113.6	113.6	125.0	125.0	114.6	114.6	118.8	48	48	48	48	48	48	44	44	44	44	48	48	48
Pittsburgh	43.8	43.8	45.8	45.8	45.8	85.4	79.2	79.2	87.5	91.7	91.7	91.7	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Portland, Oreg.	50.0	50.0	56.3	56.3	90.9	104.5	104.5	104.5	104.5	111.4	114.8	114.8	119.3	48	48	48	48	44	44	44	44	44	44	44	44	44
Richmond, Va	------	46.3	52.1	57.3	60.4	78.1	93.8	93.8	104.2	104.2	104.2	104.2	104.2	------	54	48	48	48	48	48	48	48	48	48	48	48
St. Louis	45.8	45.8	47.9	55.0	55.0	85.4	89.6	89.6	93.8	102.2	109.1	111.4	113.6	48	48	48	48	48	48	48	48	48	46½	44	44	44
St. Paul	43.8	45.8	50.0	50.0	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	48	48	48	48	48	48	48	48	48	48	48	48	48
San Francisco	56.3	56.3	56.3	62.5	62.5	79.2	113.6	113.6	113.6	113.6	125.0	125.0	125.0	48	48	48	48	48	48	44	44	44	44	44	44	44
Scranton	41.7	41.7	43.8	43.8	50.0	75.0	90.9	90.9	90.9	97.7	97.7	102.3	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44
Seattle	52.1	52.1	52.1	66.7	77.8	104.5	104.5	104.5	------	113.6	118.2	118.2	119.3	48	48	48	45	45	44	44	44	------	44	44	44	44
Washington	50.0	54.2	56.3	58.3	58.3	93.8	102.3	90.9	90.9	102.3	102.3	113.6	113.6	44	48	48	48	48	48	44	44	44	44	44	44	44

Electrotypers: Molders

Electrotypers: Molders

Atlanta	45.8	50.0	50.0	50.0	57.3	88.5	96.6	90.9	94.3	96.6	96.6	102.3	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44
Birmingham	50.0	56.3	50.0	50.0	50.0	72.9	89.8	89.8	96.6	96.6	96.6	102.3	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44
Boston	50.0	50.0	50.0	52.5	52.5	78.1	90.6	90.6	99.0	99.0	99.0	99.0	99.0	48	48	48	48	48	48	48	48	48	48	48	48	48
Buffalo	43.8	50.0	50.0	50.0	56.3	72.9	77.1	77.1	81.3	81.3	87.5	87.5	91.7	48	48	48	48	48	48	48	48	48	48	48	48	48
Chicago	54.2	56.3	60.4	60.4	77.1	104.2	113.7	108.0	129.5	134.1	138.6	140.9	140.9	48	48	48	48	48	48	44	44	44	44	44	44	44
Cincinnati	47.9	50.0	50.0	52.1	52.1	70.8	87.5	95.5	85.4	89.6	91.7	91.7	95.8	48	48	48	48	48	48	48	44	48	48	48	48	48
Cleveland	43.8	52.1	52.1	56.3	60.4	83.3	83.3	75.0	83.3	93.8	93.8	93.8	97.9	48	48	48	48	48	48	48	48	48	48	48	48	48
Dallas	43.8	41.7	41.7	43.8	65.6	72.9	72.9	-----	-----	-----	113.6	113.6	113.6	48	48	48	48	48	48	48	-----	-----	-----	44	44	44
Denver	52.1	52.1	54.2	54.2	60.4	69.8	79.5	79.5	79.5	98.9	90.9	90.9	90.9	48	48	48	48	48	48	44	44	44	44	44	44	44
Detroit	37.5	52.1	52.1	56.3	56.3	93.8	102.3	102.3	107.5	113.6	113.6	113.6	125.0	48	48	48	48	48	48	44	44	46½	44	44	44	44
Indianapolis	45.8	50.1	52.3	52.3	65.9	65.9	65.9	85.2	100.0	95.5	95.5	95.5	95.5	48	44	44	44	44	44	44	44	44	44	44	44	44
KansasCity,Mo	43.8	46.9	50.0	50.0	62.5	90.6	95.8	95.8	95.8	100.0	104.5	104.5	104.5	48	48	48	48	48	48	48	48	46	44	44	44	44
Los Angeles	50.0	50.0	56.3	56.3	70.8	86.4	86.4	86.4	102.3	102.3	102.3	102.3	113.6	48	48	48	48	48	44	44	44	44	44	44	44	44
Louisville	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	73.9	102.3	102.3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	44	44	44
Memphis	45.8	45.8	45.8	45.8	62.5	62.5	68.2	-----	-----	-----	100.0	102.3	113.6	48	48	48	48	48	48	44	-----	-----	-----	44	44	44
Milwaukee	43.8	43.8	50.0	50.0	56.3	75.0	81.3	81.3	81.3	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Minneapolis	36.1	52.1	56.3	56.3	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	54	48	48	48	48	48	48	48	44	48	48	48	48
Newark, N. J	-----	-----	-----	-----	75.0	109.1	134.1	134.1	134.1	140.9	140.9	140.9	140.9	-----	-----	-----	-----	-----	44	44	44	44	44	44	44	44
New Haven	37.4	40.7	44.9	44.9	46.7	62.5	75.0	75.0	79.5	79.5	79.5	79.5	81.3	54	54	53½	53½	53½	48	48	48	48	48	48	48	48
New York	62.5	68.8	68.8	68.8	75.0	109.0	134.1	134.1	134.1	140.9	140.9	140.9	140.9	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	43.8	43.8	52.1	52.1	66.7	113.6	102.3	102.3	102.3	102.3	102.3	102.3	102.3	48	48	48	48	48	44	44	44	44	44	44	44	44
Philadelphia	45.8	54.2	56.3	64.2	70.0	113.1	113.6	113.6	125.0	125.0	114.6	114.6	118.8	48	48	48	48	48	44	44	44	44	44	48	48	48
Pittsburgh	50.0	50.0	52.1	53.1	53.1	87.5	87.5	79.2	87.5	91.7	91.7	91.7	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Portland, Oreg.	50.0	50.0	56.3	56.3	90.9	104.5	104.5	104.5	104.5	111.4	114.8	114.8	119.3	48	48	48	48	48	44	44	44	44	44	44	44	44
Richmond, Va	-----	46.3	52.1	57.3	60.4	78.1	93.8	93.8	104.2	104.2	104.2	104.2	104.2	-----	54	48	48	48	48	48	48	48	48	48	48	48
St. Louis	47.9	47.9	50.0	57.3	57.3	85.4	89.6	89.6	93.8	102.2	109.1	111.4	113.6	48	48	48	48	48	48	48	48	48	46½	44	44	44
St. Paul	50.0	52.1	56.3	56.3	59.4	81.3	91.7	91.7	87.5	95.8	95.8	95.8	97.9	48	48	48	48	48	48	48	48	48	48	48	48	48
San Francisco	56.3	56.3	56.3	62.5	62.5	79.2	113.6	113.6	113.6	113.6	125.0	125.0	125.0	48	48	48	48	48	48	44	44	44	44	44	44	44
Scranton	47.9	47.9	50.0	50.0	56.3	75.0	90.9	90.9	90.9	97.7	97.7	102.3	102.3	48	48	48	48	48	48	44	44	44	44	44	44	44
Seattle	52.1	52.1	52.1	66.7	77.8	104.5	104.5	104.5	-----	113.6	118.2	118.2	119.3	48	48	48	45	45	44	44	44	-----	44	44	44	44
Washington	50.0	54.2	56.3	58.3	58.3	93.8	102.3	90.9	90.9	102.3	102.3	113.6	113.6	44	48	48	48	48	48	44	44	44	44	44	44	44

[33] Minimum; maximum, 8 hours per day.
[31] Including bonus of $6.50 per week.
[32] Including bonus of $7 per week.
[33] Nominal rate. All received more; $45 to $60 per week.

6984°—27——9

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Granite cutters, inside

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Baltimore	50.0	50.0	50.0	62.5	75.0	100.0	100.0	100.0	100.0	112.5	112.5	118.8	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	45.6	50.0	50.0	60.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	43.8	52.1	53.1	63.1	75.0	100.0	100.0	100.0	100.0	100.0	106.3	106.3	112.5	44	44	44	44	44	44	44	44	44	44	[34] 44	[34] 44	[34] 44
Charleston, S.C	45.0	45.0	45.0	50.0	69.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	40	40	44	44	44	44
Cincinnati	------	50.0	50.0	62.5	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	------	44	44	44	44	44	44	40	44	[34] 44	[34] 44	[34] 44	[34] 44
Cleveland	50.0	50.0	50.0	62.5	81.3	100.0	100.0	100.0	106.3	106.3	115.6	115.6	115.6	44	44	44	44	44	44	44	40	44	[34] 44	[34] 44	[34] 44	[34] 44
Dallas	------	50.0	50.0	62.5	81.3	100.0	100.0	100.0	100.0	100.0	106.3	106.3	106.3	------	44	44	44	44	44	44	44	44	44	44	[34] 44	[34] 44
Denver	57.0	57.0	57.0	68.8	85.0	100.0	106.3	106.3	106.3	106.3	106.3	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	45.0	50.0	51.3	62.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	44½	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	43.0	50.0	50.0	62.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	110.0	45	44	44	44	44	44	44	44	44	44	44	44	[9] 44
Kans. City, Mo	------	------	------	------	------	------	------	------	------	------	100.0	106.3	106.3	------	------	------	------	------	------	------	------	------	------	44	44	44
Los Angeles	62.5	66.3	67.5	70.0	87.5	100.0	112.5	112.5	112.5	112.5	------	------	112.5	48	44	44	44	44	44	44	44	44	44	------	------	44
Louisville	45.0	50.0	50.0	60.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	45	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	40.6	50.0	50.0	50.0	72.5	100.0	100.0	100.0	100.6	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	50.0	50.0	50.0	62.5	79.0	100.0	112.5	112.5	112.5	112.5	112.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	40	44
New Haven	41.0	50.0	50.0	60.0	72.5	87.5	100.0	100.0	100.0	100.0	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	45.0	50.0	50.0	50.0	75.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	112.5	45	44	44	44	44	44	44	44	44	44	44	44	44
New York	50.0	50.0	50.0	68.8	79.0	100.0	112.5	112.5	112.5	112.5	112.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	56.3	56.3	65.0	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	50.0	53.1	54.4	62.5	81.3	100.0	106.3	100.0	112.5	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	------	------	------	------	------	------	------	------	------	------	------	------	112.5	------	------	------	------	------	------	------	------	------	------	------	------	44
Providence	40.6	50.0	50.0	60.0	70.0	70.0	100.0	100.0	100.0	100.0	100.0	110.0	110.0	44	44	44	44	44	44	44	44	[11] 40	[38] 44	[38] 44	44	44
Richmond, Va	43.8	50.0	50.0	50.0	70.0	82.5	100.0	100.0	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	50.0	50.0	50.0	60.0	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	[37] 44	44	44	44
St. Paul	------	------	------	------	------	------	------	------	------	------	------	------	100.0	------	------	------	------	------	------	------	------	------	------	------	------	44
Salt Lake City	62.5	62.5	62.5	75.0	81.3	100.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	66.3	67.5	70.0	87.5	100.0	112.5	112.5	112.5	112.5	112.5	118.8	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	62.5	62.5	62.5	75.0	87.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	40	40	40	40	[35] 44	44	[36] 44
Washington	45.0	50.0	50.0	62.5	87.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44

Hod carriers

Baltimore	31.3	34.4	40.0	56.3	75.0	87.5	87.5	75.0	87.5	100.0	100.0	100.0	100.0	[9] 45	[10] 45	44	44	44	44	44	44	44	44	44	44	44
Boston	35.0	35.0	40.0	42.5	50.0	70.0	70.0	70.0	[12] 70.0	70.0	70.0	79.0	79.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	40.0	42.5	45.0	50.0	57.5	100.0	100.0	72.5	72.5	72.5	82.5	87.5	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	42.5	42.5	42.5 45.0	50.0	65.0 57.5	85.0	85.0	72.5	82.5	90.0	92.5	95.0	97.5	45	45	45	45	45	45	45	45	45	45	45	45	45
Cleveland	31.3	31.3 35.0	40.0 45.0	55.0	57.5	87.5	87.5	60.0	87.5	87.5	87.5	87.5	87.5	48	[10] 44	44	44	44	44	44	44	44	44	44	44	44
Denver	37.5 40.6	37.5 40.6	43.8 46.9	53.1 56.3	65.6	75.0 78.1	75.0 78.1	75.0 78.1	75.0 78.1	81.3 84.4	81.3 84.4	81.3 84.4	81.3 84.4	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	35.0	35.0 40.0	40.0 43.8	50.0	65.0	100.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	48	49½	44	[13] 44	44	44	44	44	49½	49½	44	44	44
Indianapolis	40.0 42.5	40.0 42.5	42.5 45.0	47.5 50.0	55.0	72.5 75.0	67.5 70.0	67.5 70.0	72.5 75.0	82.5 87.5	82.5	82.5	87.5 92.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	37.5	45.0	47.5	50.0	62.5	90.0	90.0	80.0	90.0	90.0	90.0	90.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	35.0 38.0	35.0 38.0	45.0	45.0	50.0	55.0	80.0	80.0	85.0	85.0	90.0	90.0	90.0	48	44	44	50	50	44	44	44	44	44	44	44	44
Memphis	30.0	30.0	37.5	50.0	50.0	75.0	62.5	62.5	62.5	75.0	62.5	62.5	62.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	35.0	37.5	45.0	45.0	50.0	87.5	87.5	75.0	87.5	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	28.0								65.0	65.0	65.0	67.5	75.0	44								44	44	44	44	44
New York	37.5	37.5	42.5	47.0	50.0	87.5	87.5			70.0	100.0	112.5	112.5	44	44	44	44	44	44	44			44	44	44	44
Philadelphia	35.0	25.0 40.0	45.0	60.0	70.0	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	25.0 40.0	30.0 45.0	30.0 45.0	45.0 55.0	60.0	90.0	100.0	80.0	100.0	100.0	100.0	112.5	112.5	44 49	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	50.0	50.0	50.0	62.5	75.0	93.8	90.0	90.0	100.0	100.0	100.0	100.0	100.0	48	48	48	48	44	44	44	44	44	44	44	44	44
St. Louis	42.5 45.0	47.5 50.0	47.5 50.0	46.9 55.0	62.5 65.0	70.0	85.0	85.0	100.0	115.0	115.0	115.0	115.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul		37.5	40.6	40.6	60.0	80.0	80.0	75.0	85.0	85.0	85.0	85.0	85.0		48	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	37.5 50.0	37.5 50.0	43.8 56.3	56.3 62.5	62.5 68.8	87.5 93.8	75.0 81.3	75.0 81.3	87.5 93.8	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	50.0	50.0	50.0	62.5	75.0	93.8	100.0	71.3	77.2	77.2	87.5	87.5	87.5	44	44	44	44	44	44	44	44	46¾	46¾	46¾	44	44	44
Scranton	30.0	35.0	35.0	35.0	50.0	58.5	70.0	60.0	60.0	70.0	70.0	70.0	70.0	48	[14] 44	[14] 44	[14] 44	44	44	44	44	44	44	44	44	44	44
Washington	23.1 28.1	28.0	31.3	50.0	62.5	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	[17] 45	[17] 45	[17] 45	[17] 45	[17] 45	44	44	44	44	44	44	44	44	44

[8] 40 hours per week, Oct. 16 to Mar. 15, inclusive.
[10] 48 hours per week, September to April, inclusive.
[11] 44 hours per week, October to April, inclusive.
[12] 48 hours per week, December to February, inclusive.
[14] 48 hours per week, October to April, inclusive.
[17] 44½ hours per week, October to April, inclusive.
[18] Old scale; strike pending.
[34] 40 hours per week, November to March, inclusive.
[35] 40 hours per week, November to April, inclusive.
[36] 40 hours per week, October to March, inclusive.
[37] 40 hours per week, Nov. 15 to Apr. 15.
[38] 44 hours per week, November to March, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Inside wiremen

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Atlanta	----	----	38.9	55.0	75.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	----	----	54	48	44	44	44	44	44	44	44	44	44
Baltimore	43.8	43.8	50.0	70.0	70.0	92.5	112.5	100.0	100.0	120.0	131.3	131.3	143.8	48	48	48	[40] 48	44	44	44	44	44	44	44	44	44
Birmingham	62.5	50.0	50.0	62.5	80.0	100.0	100.0	85.0	100.0	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	55.0	62.5	65.0	70.0	77.5	100.0	100.0	100.0	105.0	110.0	110.0	120.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	45.0	56.3	62.5	70.0	70.0	90.0	90.0	90.0	100.0	112.5	112.5	125.0	125.0	48	[1] 48	[1] 48	44	44	44	44	44	44	44	44	44	44
Chicago	75.0	75.0	75.0	81.3	87.5	125.0	125.0	110.0	110.0	125.0	150.0	150.0	156.3	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	56.3	62.5	68.8	71.9	100.0	100.0	95.0	105.0	115.0	125.0	131.3	135.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½
Cleveland	57.5	70.0	75.0	81.3	90.0	125.0	137.5	110.0	125.0	137.5	143.8	150.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	56.3	62.5	65.0	80.0	87.5	100.0	112.5	112.5	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	56.3	60.0	62.5	82.5	82.5	100.0	100.0	100.0	112.5	112.5	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	46.9	59.4	66.9	75.0	93.8	125.0	100.0	100.0	100.0	125.0	130.0	140.0	150.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Fall River	37.5	41.0	50.0	60.0	70.0	85.0	90.0	85.0	95.0	95.0	95.0	95.0	95.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	47.5	53.0	57.0	67.5	72.0	100.0	100.0	100.0	110.0	115.0	125.0	125.0	137.5	[21] 48	44	44	44	44	44	44	44	44	44	44	44	44
Jacksonville	45.0	45.0	45.0	65.0	85.0	100.0	100.0	85.0	85.0	85.0	100.0	125.0	125.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Kansas City, Mo	62.5	65.0	68.8	75.0	87.5	100.0	100.0	100.0	106.3	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	50.0	50.0	55.0	75.0	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	48	[41] 48	[41] 48	[41] 48	[41] 48	44	44	44	44	44	44	44	44
Los Angeles	50.0	50.0	50.0	62.5	80.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	112.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Louisville	40.0	40.0	45.0	50.0	75.0	75.0	100.0	90.0	100.0	100.0	106.3	106.3	115.0	48	48	48	48	44	44	44	44	44	44	44	44	44
Manchester	31.3	37.5	42.5	60.0	75.0	100.0	100.0	80.0	100.0	100.0	100.0	100.0	100.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Memphis	45.0	50.0	56.3	62.5	75.0	100.0	100.0	87.5	87.5	87.5	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	45.0	50.0	56.3	56.3	75.0	85.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	56.3	56.3	68.8	68.8	81.3	100.0	87.5	87.5	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	56.3	62.5	62.5	68.8	75.0	100.0	112.5	112.5	112.5	131.3	131.3	150.0	156.3	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	----	44.5	60.0	60.0	75.0	82.5	93.8	85.0	90.8	100.0	100.0	100.0	100.0	----	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	45.0	50.0	50.0	56.3	70.0	90.0	100.0	100.0	90.0	105.0	110.0	110.0	120.0	48	48	48	48	48	44	44	44	44	44	44	44	44
New York	56.3	60.0	65.0	65.0	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	50.0	57.5	57.5	70.0	87.5	112.5	112.5	100.0	112.5	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	45.0	50.0	56.3	65.0	75.0	100.0	112.5	90.0	100.0	112.5	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	[67] 44	[67] 44
Pittsburgh	57.5	62.5	62.5	68.8	75.0	100.0	125.0	112.5	125.0	125.0	143.8	143.8	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	56.3	56.3	56.3	72.2	80.0	100.0	100.0	90.0	100.0	112.5	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Providence	43.8	50.0	55.0	60.0	70.0	85.0	115.0	90.0	90.0	100.0	100.0	100.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	65.0	75.0	75.0	75.0	87.5	100.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	46.9	56.3	62.5	68.8	68.8	81.3	100.0	80.0	80.0	100.0	87.5	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44

San Francisco	62.5	62.5	75.0	75.0	87.5	112.5	125.0	100.0	100.0	100.0	100.0	106.3	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	46.9	50.0	60.0	62.5	75.0	95.0	87.5	87.5	87.5	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	62.5	62.5	75.0	87.5	100.0	112.5	112.5	100.0	106.3	112.5	112.5	125.0	125.0	44	44	44	44	40	40	40	40	40	40	40	40	40
Washington	55.0	60.0	60.0	75.0	100.0	100.0	106.3	106.3	112.5	125.0	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44

Painters

Atlanta	33.3	33.3	36.1	50.0	60.0	60.0	85.0	75.0	75.0	75.0	75.0	80.0	85.0	[7] 53	[7] 53	[7] 53	48	44	44	44	44	44	44	44	44	44
Baltimore	37.5	37.5	43.8	56.3	68.8	90.0	90.0	80.0	80.0	90.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Birmingham	45.0	45.0	50.0	62.5	75.0	87.5	87.5	75.0	87.5	87.5	100.0	100.0	112.5	48	48	44	44	44	44	44	44	44	44	44	44	44
Boston	50.0	60.5	62.5	75.0	82.5	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	44	40	40	40	40	40	40	40	40	40	40	40	40
Buffalo	43.8	46.9	50.0	56.3	62.5	87.5	87.5	87.5	87.5	87.5	100.0	100.0	112.5	48	[1] 48	[1] 48	[66] 48	[66] 48	[66] 48	[66] 48	[66] 48	[66] 48	44	44	44	44
Charleston, S. C	25.0	25.0	25.0	{31.3 50.0	50.0 65.0	65.0 80.0	65.0 80.0	50.0 65.0	55.0 65.0	55.0	55.0	55.0	55.0	48	48	48	48	48	48	44	44	44	44	44	44	44
Chicago	65.0	70.0	72.5	75.0	87.5	125.0	125.0	110.0	125.0	125.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	50.0	55.0	55.0	60.0	62.5	87.5	100.0	87.5	97.5	107.5	117.5	125.0	131.3	44	44	44	44	44	44	44	44	44	44	44	44	40
Cleveland	50.0	55.0	55.0	67.5	75.0	112.5	112.5	100.0	112.5	125.0	125.0	[18]125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	50.0	50.0	60.0	70.0	87.5	100.0	100.0	87.5	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	50.0	55.0	62.5	68.8	85.0	100.0	112.5	100.0	100.0	112.5	117.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Detroit	45.0	50.0	60.0	70.0	80.0	100.0	100.0	90.0	100.0	112.5	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	37.5	41.0	41.0	55.0	62.5	100.0	100.0	75.0	90.0	90.0	90.0	90.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	47.5	50.0	55.0	55.0	70.0	100.0	100.0	90.0	97.5	105.0	105.0	110.0	115.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Jacksonville	37.5	37.5	45.0	50.0	75.0	87.5	75.0	75.0	75.0	-------	75.0	100.0	100.0	48	48	48	48	44	44	44	44	44	-----	44	44	44
Kansas City, Mo	60.0	60.0	60.0	70.0	82.5	100.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	50.0	55.0	55.0	60.0	80.0	100.0	100.0	87.5	87.5	87.5	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	43.8	43.8	50.0	56.3	75.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Louisville	45.0	50.0	50.0	50.0	62.5	75.0	87.5	87.5	100.0	112.5	112.5	112.5	112.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Manchester	------	37.5	37.5	50.0	62.5	80.0	80.0	70.0	80.0	90.0	90.0	90.0	90.0	-----	48	48	44	44	44	44	44	44	44	44	44	44
Memphis	50.0	52.5	60.0	62.5	75.0	100.0	100.0	87.5	87.5	100.0	100.0	100.0	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	50.0	50.0	55.0	60.0	70.0	85.0	85.0	85.0	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	50.0	55.0	55.0	62.5	70.0	100.0	100.0	80.0	90.0	90.0	100.0	90.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	44.0	46.9	50.0	62.5	75.0	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	[67] 44	40	40	40	40
New Haven	40.9	40.9	45.5	53.1	62.5	87.5	100.0	100.0	90.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	40.0	40.0	40.0	50.0	65.0	75.0	90.0	80.0	80.0	85.0	85.0	85.0	90.0	48	48	48	48	44	44	44	44	44	44	44	44	44
New York	50.0	62.5	62.5	62.5	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	{175.0 150.0	44	44	44	44	44	40	40	40	40	40	40	40	40
Omaha	50.0	55.0	62.5	62.5	75.0	100.0	101.3	90.0	112.5	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	42.5	42.5	45.0	60.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	[18]100.0	105.0	44	44	44	44	44	40	40	44	44	44	44	44	44
Pittsburgh	55.0	58.1	65.0	67.5	87.5	112.5	112.5	100.0	125.0	137.5	143.8	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44

[1] 44 hours per week, June to August, inclusive.
[7] Work 53 hours, paid for 54.
[18] Old scale; strike pending.
[21] 44 hours per week, June to September, inclusive.
[40] 44 hours per week, August to December, inclusive.
[41] 44 hours per week, July to September, inclusive.
[66] 44 hours per week, July to March, inclusive.
[67] 40 hours per week, June to August, inclusive.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Painters—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Portland, Oreg.	50.0	50.0	50.0	70.0	90.0	100.0	90.0	90.0	100.0	100.0	100.0	112.5	112.5	48	44	44	44	44	44	44	44	44	44	40	40	40
Providence	45.5	45.5	50.0	62.5	62.5	90.0	90.0	80.0	90.0	100.0	100.0	106.3	106.3	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	37.5	30.6	37.5	50.0	60.0	65.0	75.0	67.5	80.0	80.0	80.0	80.0	80.0	48	54	48	48	48	48	48	48	48	48	48	48	44
St. Louis	57.0	62.5	62.5	75.0	75.0	100.0	125.0	100.0	112.5	130.0	130.0	135.0	143.8	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	50.0	55.0	55.0	62.5	70.0	100.0	100.0	80.0	90.0	90.0	90.0	95.0	95.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	56.3	62.5	75.0	75.0	90.0	100.0	100.0	90.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	56.3	62.5	62.5	75.0	87.5	106.3	106.3	100.0	104.4	104.4	104.4	{100.0 / 104.4}	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	40.0	45.0	50.0	50.0	65.0	87.5	87.5	87.5	87.5	100.0	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	40	40	40	40
Seattle	56.3	56.3	65.0	75.0	90.0	100.0	93.8	93.8	100.0	105.0	112.5	112.5	112.5	44	44	44	40	40	40	40	40	40	40	40	40	40
Washington	50.0	50.0	56.3	75.0	75.0	90.0	100.0	100.0	112.5	112.5	118.8	118.8	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44
Plasterers																										
Atlanta	45.0	45.0	45.0	50.0	60.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	53	53	53	49½	49½	44	44	44	44	44	44	44	44
Baltimore	62.5	62.5	68.8	72.0	87.5	112.5	125.0	125.0	150.0	175.0	175.0	175.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	40
Birmingham	62.5	62.5	62.5	62.5	75.0	75.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	65.0	70.0	70.0	70.0	80.0	100.0	125.0	112.5	112.5	125.0	125.0	150.0	150.0	44	40	40	40	40	40	40	40	40	40	40	40	40
Buffalo	60.0	60.0	65.0	70.0	85.0	100.0	100.0	100.0	150.0	150.0	150.0	150.0	150.0	48	[6] 44	44	44	44	[68] 40	40	40	40	40	40	40	40
Charleston, S.C.	40.0	40.0	40.0	50.6	75.0	100.0	85.0	85.0	100.0	100.0	100.0	100.0	100.0	[7] 53	[7] 53	[7] 53	48	48	48	48	48	{44 / 48}	48	44	44	44
Chicago	75.0	75.0	75.0	81.3	87.5	125.0	125.0	110.0	150.0	150.0	150.0	[18]150.0	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	68.8	75.0	75.0	75.0	87.5	100.0	112.5	112.5	125.0	150.0	150.0	150.0	150.0	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½	44½
Cleveland	62.5	68.8	75.0	85.0	90.0	125.0	125.0	125.0	125.0	125.0	156.3	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	75.0	87.5	87.5	100.0	112.5	112.5	150.0	137.5	150.0	162.5	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	75.0	75.0	87.5	87.5	87.5	125.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	68.8	68.8	75.0	75.0	87.5	125.0	125.0	112.5	150.0	156.3	156.3	156.3	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	55.0	60.0	65.0	75.0	85.0	115.0	115.0	95.0	110.0	110.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	62.5	68.8	72.0	75.0	87.5	100.0	112.5	112.5	131.3	150.0	150.0	150.0	155.0	44½	44½	44½	44½	44½	44	44	44	44	44	44	44	44
Jacksonville	56.3	56.3	56.3	68.8	75.0	87.5	87.5	87.5	100.0	125.0	125.0	175.0	175.0	48	48	48	44	44	44	44	44	44	44	44	44	44

Kansas City, Mo	75.0	75.0	75.0	87.5	100.0	120.0	120.0	112.5	137.5	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	62.5	62.5	75.0	75.0	87.5	112.5	112.5	112.5	112.5	150.0	150.0	150.0	150.0	48	[22] 44	[22] 44	[22] 44	[22] 44	44	44	44	44	44	44	44	44	44	44
Los Angeles	75.0	75.0	62.5	75.0	87.5	112.5	125.0	125.0	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	40	40	44	44	44	44	44	44	44
Louisville	65.0	65.0	65.0	70.0	75.0	100.0	112.5	112.5	150.0	150.0	150.0	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	50.0	60.0	60.0	75.0	90.0	112.5	112.5	112.5	112.5	150.0	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	75.0	75.0	75.0	87.5	87.5	100.0	112.5	112.5	112.5	137.5	156.3	156.3	156.3	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	65.0	65.0	65.0	70.0	87.5	87.5	112.5	112.5	112.5	125.0	137.5	137.5	143.8	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	70.0	70.0	75.0	75.0	90.0	112.5	125.0	100.0	112.5	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	65.0	70.0	75.0	75.0	87.5	125.0	125.0	125.0	125.0	150.0	150.0	162.5	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	60.0	60.0	65.0	70.0	82.5	100.0	100.0	100.0	112.5	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	62.5	50.0	62.5	62.5	75.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	48	48	45	45	45	45	45	45	45	45	44	45	44		
New York	68.8	75.0	75.0	75.0	93.8	110.8	125.0	125.0	125.0	150.0	150.0	175.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	40	40	
Omaha	75.0	75.0	75.0	80.0	87.5	112.5	125.0	125.0	125.0	137.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	
Philadelphia	62.5	65.0	70.0	75.0	80.0	125.0	125.0	125.0	125.0	150.0	150.0	175.0	175.0	44	40	40	40	40	40	40	40	40	40	40	40	40	40	
Pittsburgh	62.5	75.0	75.0	75.0	85.0	115.0	125.0	112.5	137.5	156.3	156.3	166.3	166.3	44	44	44	44	44	44	44	44	44	44	44	44	40	40	
Portland, Oreg	75.0	75.0	75.0	87.5	110.0	112.5	112.5	112.5	125.0	125.0	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	40	40	
Providence	62.5	62.5	68.8	80.0	100.0	115.0	105.0	105.0	115.0	125.0	150.0	150.0	150.0	44	44	40	40	40	40	40	40	40	40	40	40	40	40	
Richmond, Va	37.5				62.5	75.0	87.5	87.5	125.0	125.0	125.0	125.0	125.0	48				44	44	44	44	44	44	44	44	44	44	
St. Louis	75.0	75.0	75.0	87.5	100.0	125.0	137.5	137.5	150.0	175.0	175.0	175.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	
St. Paul	62.5	70.0	70.0	75.0	90.0	112.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	
Salt Lake City	75.0	75.0	87.5	87.5	100.0	125.0	112.5	112.5	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	
San Francisco	87.5	87.5	87.5	100.0	112.5	125.0	137.5	127.5	[8] 127.5	[8] 127.5	150.0	150.0	150.0	44	40	40	40	40	40	40	44	44	44	44	44	44	44	
Scranton	55.0	65.0	65.0	70.0	80.0	100.0	150.0	125.0	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	
Seattle	75.0	75.0	87.5	100.0	112.5	125.0	125.0	112.5	125.0	137.5	137.5	137.5	137.5	44	40	40	40	40	40	40	40	40	40	40	40	40	40	
Washington	62.5	62.5	70.0	70.0	87.5	100.0	125.0	125.0	150.0	150.0	162.5	162.5	162.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	

Plasterers' laborers

Baltimore													100.0															40
Birmingham													50.0															44
Boston	{40.0 / 41.5}	45.0	45.0	50.0	60.0	80.0	80.0	80.0	95.0	95.0	95.0	95.0	105.0	44	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Chicago	48.0	50.0	50.0	56.3	62.5	106.3	106.3	78.8	78.8	78.8	88.8	93.8	96.8	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	45.0	45.0	45.0	50.0	65.0	85.0	85.0	72.5	82.5	90.0	92.5	95.0	97.5	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Cleveland	35.0	35.0	45.0	55.0	57.5	87.5	87.5	60.0	87.5	87.5	87.5	87.5	87.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	43.8	43.8	43.8	59.4	68.8	81.3	81.3	81.3	81.3	87.5	87.5	87.5	87.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44

[8] 48 hours per week, Nov. 16 to Mar. 15.
[7] Work 53 hours; paid for 54.
[8] Nominal rate: All received more; average $1.50 per hour.
[18] Old scale; strike pending.
[22] 48 hours per week, October to March, inclusive.
[66] 44 hours per week, Nov. 14 to May 14.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Plasters' laborers—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Detroit	37.5	43.8	50.0	50.0	75.0	100.0	75.0	75.0	100.0	100.0	87.5	87.5	87.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	37.5	45.0	50.0	55.0	68.8	90.0	90.0	80.0	90.0	90.0	90.0	90.0	90.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	61.4	56.3	50.0	62.5	75.0	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	38.0	38.0	45.0	45.0	55.0	55.0	80.0	80.0	85.0	85.0	90.0	90.0	90.0	44	44	44	44	44	44	40	40	44	44	44	44	44
Memphis	32.5	------	------	50.0	50.0	75.0	62.0	62.5	62.5	75.0	75.0	75.0	75.0	44	-----	-----	44	44	44	44	44	44	44	44	44	44
Milwaukee	32.5	37.5	42.9	50.0	55.0	70.0	85.0	75.0	75.0	85.0	90.0	90.0	90.0	48	48	48	48	[12] 44	44	44	44	44	44	44	44	44
Minneapolis	40.6	45.0	50.0	55.0	60.0	85.0	85.0	75.0	85.0	85.0	85.0	90.0	90.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	------	37.5	45.0	45.0	50.0	87.5	87.5	75.0	87.5	100.0	100.0	112.5	112.5	-----	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	------	------	------	------	------	------	------	------	------	------	------	------	85.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	44
New Orleans	22.5	22.5	28.3	28.3	{35.0 {45.0	50.0 65.0	50.0	50.0	65.0	75.0	75.0	75.0	75.0	48	48	45	45	45	45	45	45	45	45	45	45	44
New York	40.6	43.8	46.9	56.3	62.5	87.5	93.8	93.8	106.3	106.3	106.3	{121.9 {125.0	121.9 125.0	44	44	44	44	44	44	44	44	44	44	44	40	40
Philadelphia	43.8	44.0	46.9	50.0	62.5	110.0	110.0	100.0	100.0	112.5	112.5	112.5	112.5	44	40	40	44	44	44	44	44	44	44	44	44	44
Pittsburgh	40.0	45.0	45.0	55.0	60.0	90.0	100.0	80.0	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	50.0	50.0	50.0	62.5	75.0	93.8	90.0	90.0	100.0	100.0	100.0	112.5	112.5	48	48	48	48	44	44	44	44	44	44	44	40	40
St. Louis	[7]56.3	56.3	56.3	62.5	75.0	87.5	100.0	100.0	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	56.3	56.3	62.5	68.8	75.0	100.0	87.5	87.5	100.0	125.0	125.0	125.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	62.5	62.5	62.5	68.8	87.5	106.3	112.5	95.0	83.2	83.2	100.0	100.0	100.0	44	44	44	44	44	40	40	46½	46½	46½	44	44	44
Scranton	------	35.0	35.0	35.0	50.0	58.5	70.0	60.0	60.0	70.0	70.0	70.0	70.0	-----	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	50.0	50.0	62.5	75.0	87.5	87.5	87.5	87.5	93.8	100.0	100.0	100.0	100.0	44	44	44	44	40	40	40	40	40	40	40	40	40

Plumbers

Atlanta	44.4	44.4	44.4	68.8	75.0	75.0	75.0	100.0	100.0	112.5	112.5	125.0	125.0	[7] 53	[7] 53	[7] 53	44	44	44	44	44	44	44	44	44	44
Baltimore	50.0	50.0	56.3	68.8	75.0	87.5	100.0	93.8	100.0	118.8	125.0	125.0	125.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Birmingham	68.8	75.0	75.0	87.5	112.5	150.0	150.0	125.0	150.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Boston	60.0	65.0	68.8	75.0	80.0	100.0	100.0	100.0	105.0	112.5	110.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	56.3	56.3	62.5	68.8	75.0	100.0	100.0	100.0	100.0	112.5	118.8	137.5	137.5	48	[1] 48	[1] 48	44	44	44	44	44	44	44	44	44	44

Charleston, S.C	.....	43.8	50.0	59.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	.....	48	48	48	48	44	44	44	44	44	44	44	44
Chicago	75.0	75.0	75.0	75.0	84.4	125.0	125.0	110.0	110.0	125.0	125.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	61.8	61.8	65.6	65.5	75.0	100.0	100.0	100.0	112.5	125.0	125.0	135.0	137.5	44½	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Cleveland	62.5	68.8	75.0	81.3	90.0	100.0	137.5	110.0	131.3	137.5	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	68.8	75.0	81.3	87.5	100.0	125.0	137.5	125.0	125.0	137.5	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	62.5	62.5	75.0	87.5	87.5	100.0	106.3	106.3	118.8	118.8	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	56.3	62.5	68.8	75.0	90.0	125.0	100.0	100.0	125.0	130.0	130.0	140.0	150.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Fall River	43.8	50.0	50.0	56.3	67.5	100.0	100.0	85.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	62.5	62.5	67.5	75.0	87.5	100.0	125.0	115.0	122.5	130.0	135.0	135.0	142.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Jacksonville	62.5	62.5	62.5	75.0	80.0	93.8	112.5	100.0	112.5	125.0	125.0	150.0	162.5	48	48	48	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo	62.5	75.0	75.0	87.5	100.0	100.0	125.0	112.5	125.0	137.5	137.5	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	56.3	62.5	68.8	75.0	87.5	125.0	112.5	100.0	100.0	112.5	112.5	112.5	112.5	[21] 48	[13] 44	44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	56.3	56.3	62.5	68.8	81.3	112.5	112.5	112.5	112.5	112.5	112.5	112.5	112.5	48	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Louisville	60.0	60.0	60.0	70.0	70.0	80.0	100.0	100.0	112.5	112.5	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	31.3	47.7	47.7	50.0	70.0	100.0	90.0	80.0	100.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	62.5	62.5	62.5	81.3	93.8	125.0	125.0	112.5	125.0	125.0	131.3	135.0	142.5	48	48	48	48	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	62.5	62.5	62.5	68.8	75.0	87.5	100.0	90.0	100.0	112.5	112.5	118.8	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Minneapolis	56.3	62.5	62.5	68.8	75.0	100.0	100.0	87.5	100.0	100.0	100.0	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J	62.5	62.5	62.5	75.0	87.5	112.5	112.5	112.5	112.5	131.3	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	50.0	54.5	54.5	62.5	75.0	87.5	100.0	87.5	100.0	106.3	106.3	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	56.3	56.3	56.3	68.8	80.0	90.0	100.0	90.0	90.0	105.0	112.5	125.0	125.0	48	48	48	48	48	48	44	44	44	44	44	44	44	44	44
New York	68.8	68.8	68.8	75.0	75.0	112.5	112.5	112.5	125.0	137.5	137.5	{137.5 / 150.0}	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	68.3	68.3	75.0	75.0	87.5	125.0	125.0	100.0	125.0	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	{43.8 / 50.0}	{43.8 / 50.0}	56.3	62.5	80.0	90.0	115.0	90.0	115.0	115.0	115.0	115.0	115.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	62.5	68.8	75.0	75.0	93.8	106.3	125.0	112.5	115.6	137.5	143.8	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg	75.0	75.0	75.0	81.3	100.0	112.5	112.5	106.3	112.5	125.0	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44	40	40
Providence	56.3	56.3	62.5	75.0	75.0	100.0	100.0	100.0	100.0	112.5	125.0	125.0	127.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	66.3	75.0	75.0	81.3	100.0	125.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	62.5	62.5	62.5	68.8	75.0	87.5	100.0	100.0	100.0	100.0	100.0	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	75.0	75.0	75.0	87.5	100.0	112.5	100.0	100.0	112.5	112.5	120.0	120.0	120.0	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	50.0	53.8	53.8	62.5	75.0	87.5	87.5	87.5	93.8	112.5	112.5	118.8	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	81.3	75.0	81.3	90.0	100.0	112.5	112.5	100.0	112.5	125.0	125.0	125.0	137.5	44	44	44	44	40	40	40	40	40	40	40	40	44	40	40
Washington	50.0	56.3	56.3	75.0	87.5	100.0	100.0	106.3	125.0	125.0	131.3	137.5	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44	44	44

[1] 44 hours per week, June to August, inclusive.
[7] Work 53 hours, paid for 54.
[12] 48 hours per week, November to April, inclusive.
[21] 44 hours per week, June to September, inclusive.
[70] For helpers.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Sheet-metal workers

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Baltimore	40.0	40.0	45.8	62.5	80.0	80.0	90.0	90.0	90.0	100.0	120.0	120.0	131.3	48	48	48	44	44	44	44	44	44	44	44	44	44
Birmingham	55.0	50.0	50.0	65.0	75.0	100.0	100.0	85.0	85.0	100.0	100.0	112.5	112.5	41	44	44	44	44	44	44	44	44	44	44	44	44
Boston	55.0	60.0	60.0	70.0	80.0	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	45.0	50.0	50.0	56.3	62.5	87.5	87.5	87.5	100.0	110.0	110.0	110.0	110.0	48	[1] 48	[1] 48	[1] 48	44	44	44	44	44	44	44	44	44
Chicago	65.0	70.0	70.0	70.0	75.0	125.0	125.0	110.0	110.0	125.0	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	45.0	50.0	50.0	52.5	56.0	70.0	80.0	80.0	90.0	100.0	110.0	116.3	120.0	44	44	48	48	48	48	48	48	48	48	48	48	48
Cleveland	45.0	50.0	60.0	80.0	85.0	125.0	125.0	104.0	125.0	125.0	125.0	125.0	137.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	50.0	62.5	68.8	75.0	87.5	100.0	100.0	100.0	112.5	115.6	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Denver	56.3	56.3	62.5	75.0	87.5	100.0	100.0	100.0	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	40.0	50.0	60.0	70.0	80.0	125.0	100.0	100.0	112.5	112.5	112.5	125.0	125.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	47.5	55.0	57.0	60.0	60.0	100.0	100.0	92.5	97.5	105.0	105.0	107.5	115.0	48	44	44	44	44	44	44	44	44	44	44	44	44
KansasCity,Mo	57.5	62.5	62.5	67.5	70.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	41	44	44
Little Rock	50.0	52.5	60.0	65.0	80.0	100.0	100.0	90.0	90.0	100.0	90.0	90.0	90.0	48	48	48	48	[41] 48	44	44	44	41	44	44	44	44
Los Angeles	56.3	56.3	56.3	68.5	68.5	100.0	112.5	112.5	112.5	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Louisville	40.0	45.0	47.5	50.0	65.0	80.0	80.0	80.0	90.0	100.0	100.0	100.0	100.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Manchester	34.4	34.4	34.4	37.5	44.3	100.0	90.0	80.0	90.0	90.0	100.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Memphis	45.0	50.0	53.1	62.5	75.0	100.0	100.0	87.5	87.5	105.0	112.5	112.5	112.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Milwaukee	42.5	47.5	52.5	60.0	60.0	67.5	100.0	85.0	85.0	100.0	100.0	100.0	100.0	48	[71] 48	[1] 48	[1] 48	[1] 48	44	44	44	44	44	44	44	44
Minneapolis	50.0	50.0	50.0	56.3	70.0	100.0	100.0	90.0	90.0	90.0	90.0	100.0	100.0	48	48	48	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	60.0	60.0	62.5	75.0	87.5	100.0	112.5	112.5	112.5	131.3	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	47.7	50.0	54.5	59.1	75.0	87.5	100.0	87.5	100.0	106.3	106.3	112.5	112.5	44	44	44	44	44	44	44	44	44	41	44	44	44
New Orleans	----	40.0	45.0	68.8	80.0	100.0	100.0	90.0	90.0	90.0	90.0	90.0	90.0	----	48	44	44	44	44	44	44	44	44	44	44	44
New York	59.4	62.5	62.5	70.0	75.0	112.5	112.5	112.5	112.5	131.3	131.3	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	42.5	42.5	50.0	68.0	75.0	112.5	112.5	100.0	100.0	100.0	100.0	100.0	100.0	44	41	44	44	41	44	44	44	44	44	44	44	44
Philadelphia	50.0	50.0	56.3	70.0	75.0	110.0	100.0	90.0	100.0	112.5	112.5	112.5	118.8	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	55.0	60.0	60.0	70.0	80.0	90.0	112.5	100.0	117.5	131.3	143.8	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	56.3	56.3	65.6	82.5	86.0	100.0	100.0	90.0	100.0	106.3	----	----	112.5	41	44	44	44	44	44	44	44	44	----	----	----	40
Providence	46.0	50.0	52.0	57.0	65.0	100.0	100.0	87.5	95.0	100.0	110.0	110.0	110.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	60.0	60.0	62.5	65.0	75.0	85.0	125.0	100.0	125.0	137.5	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	50.0	50.0	50.0	56.3	70.0	100.0	100.0	90.0	90.0	90.0	90.0	100.0	100.0	48	48	44	44	44	44	44	44	44	44	44	44	44
Salt Lake City	87.5	62.5	62.5	62.5	87.5	100.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	68.8	68.8	75.0	82.5	100.0	112.5	125.0	103.3	106.3	106.3	106.3	106.3	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	56.3	56.3	62.5	75.0	87.5	112.5	112.5	100.0	112.5	112.5	112.5	112.5	118.8	48	44	44	44	44	44	44	44	44	44	44	44	44
Washington	50.0	50.0	50.0	56.3	70.0	100.0	100.0	90.0	100.0	125.0	125.0	125.0	125.0	48	48	44	44	44	44	44	44	44	44	44	44	44

Salt Lake City	87.5	62.5	62.5	62.5	87.5	100.0	90.0	90.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	68.8	68.8	75.0	82.5	100.0	112.5	125.0	106.3	106.3	106.3	106.3	106.3	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	43.8	46.9	50.3	56.3	75.0	87.5	87.5	87.5	93.8	112.5	112.5	118.8	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	56.3	62.5	68.8	82.5	90.0	100.0	100.0	93.8	100.0	106.3	------	------	125.0	44	44	44	44	44	44	44	44	44	44	44	-----	40
Washington	50.0	50.0	56.3	70.0	75.0	92.5	100.0	100.0	106.3	120.0	125.0	131.3	137.5	44	44½	44½	44	44	44	44	44	44	44	44	44	44

Stonecutters

Baltimore	50.0	56.3	56.3	56.3	75.0	100.0	100.0	90.0	100.0	112.5	125.0	125.0	125.0	44½	44	44	44	44	44	44	44	44	44	44	44	44
Birmingham	------	------	------	------	------	------	------	------	------	------	100.0	100.0	100.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	44	44	44
Boston	56.3	56.3	62.5	70.0	70.0	100.0	100.0	100.0	110.0	110.0	110.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	56.3	56.3	62.5	62.5	75.0	100.0	100.0	100.0	100.0	120.0	125.0	125.0	135.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Chicago	62.5	62.5	70.0	70.0	81.3	125.0	125.0	102.5	102.5	125.0	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Cincinnati	56.3	62.5	65.0	70.0	77.5	115.0	125.0	125.0	125.0	125.0	125.0	132.5	150.0	44½	44½	44	44	44	44	44	44	44	44	44	44	44
Cleveland	60.0	62.5	70.0	77.5	80.0	112.5	125.0	110.0	125.0	125.0	135.0	135.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	62.5	62.5	75.0	75.0	87.5	100.0	125.0	125.0	125.0	125.0	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	62.5	62.5	62.5	75.0	87.5	100.0	112.5	100.0	112.5	112.5	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	62.5	65.0	70.0	70.0	80.0	125.0	112.5	112.5	125.0	125.0	137.5	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	56.3	56.3	62.5	62.5	75.0	100.0	100.0	100.0	100.0	100.0	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	56.3	62.5	62.5	62.5	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Little Rock	55.0	55.0	55.0	60.0	65.0	100.0	100.0	80.0	87.5	112.5	80.0	------	125.0	44	44	44	44	44	44	44	44	44	44	44	----	44
Louisville	56.3	56.3	60.0	60.0	75.0	100.0	100.0	100.0	100.0	112.5	112.5	112.5	112.5	48	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	65.0	65.0	65.0	75.0	75.0	100.0	112.5	112.5	125.0	125.0	125.0	137.5	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Milwaukee	50.0	56.3	62.5	------	------	100.0	90.0	90.0	106.3	112.5	112.5	125.0	125.0	44	44	44	-----	-----	44	44	44	44	44	44	44	44
Minneapolis	56.3	62.5	62.5	62.5	75.0	87.5	112.5	100.0	112.5	112.5	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	68.8	68.8	68.8	68.8	84.4	112.5	112.5	112.5	125.0	131.3	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	47.7	50.0	54.5	59.1	75.0	87.5	100.0	87.5	100.0	106.3	106.3	------	125.0	44	44	44	44	44	44	44	44	44	44	44	----	44
New Orleans	------	------	------	------	------	------	125.0	125.0	125.0	125.0	125.0	125.0	125.0	-----	-----	-----	-----	-----	-----	44	44	44	44	44	44	44
New York	68.8	68.8	68.8	68.8	84.4	100.0	112.5	112.5	{125.0 / 112.5}	131.3	137.5	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Philadelphia	50.0	56.3	65.0	65.0	82.5	135.0	135.0	100.0	112.5	125.0	125.0	131.3	131.3	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	54.5	54.5	54.5	62.5	75.0	87.5	100.0	100.0	100.0	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	56.3	62.5	62.5	70.0	85.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	56.3	60.0	62.5	62.5	75.0	87.5	112.5	100.0	112.5	112.5	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	------	------	------	------	------	------	------	------	------	------	112.5	112.5	112.5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	44	44	44
Scranton	50.0	50.0	50.0	56.3	60.0	90.0	100.0	100.0	100.0	112.5	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Seattle	------	70.0	70.0	87.5	------	------	125.0	112.5	112.5	112.5	106.3	125.0	125.0	-----	44	44	44	-----	-----	44	44	44	44	44	44	44
Washington	54.0	56.3	56.3	65.0	87.5	100.0	100.0	100.0	112.5	112.5	------	------	125.0	44	44	44	44	44	44	44	44	44	44	-----	-----	44

[1] 44 hours per week, June to August, inclusive.

[q] 44 hours per week, July to September, inclusive.

[n] 44 hours per week, June 15 to Sept. 15.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Structural-iron workers

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Atlanta	62.5	62.5	62.5	75.0	80.0	95.0	95.0	-------	80.0	100.0	112.5	125.0	125.0	44	44	44	44	44	44	44	----	44	44	44	44	44
Baltimore	56.3	62.5	62.5	75.0	100.0	125.0	125.0	112.5	112.5	125.0	137.5	137.5	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Birmingham	62.5	62.5	62.5	75.0	80.0	100.0	-------	-------	105.0	112.5	112.5	112.5	125.0	44	44	44	44	44	44	----	----	44	44	44	44	44
Boston	62.5	62.5	68.8	80.0	80.0	100.0	100.0	100.0	105.0	110.0	110.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Buffalo	60.0	62.5	62.5	70.0	85.0	100.0	125.0	100.0	100.0	112.5	125.0	125.0	125.0	48	[21] 48	[21] 48	44	44	44	44	44	44	44	44	44	44
Chicago	68.0	68.0	69.0	70.0	87.5	125.0	125.0	105.0	105.0	125.0	125.0	137.5	150.0	44	[72] 44	[72] 44	[72] 44	44	44	44	44	44	44	44	44	44
Cincinnati	62.5	62.5	65.0	75.0	75.0	100.0	90.0	95.0	105.0	115.0	125.0	131.3	135.0	44½	44½	44	44	44	44	44	44	44	44	44	44	44
Cleveland	65.0	70.0	80.0	90.0	100.0	125.0	125.0	110.0	137.5	150.0	150.0	150.0	150.0	[14] 44	44	44	44	44	44	44	44	44	44	44	44	44
Dallas	62.5	67.5	67.5	75.0	75.0	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Denver	56.3	62.5	70.0	75.0	87.5	100.0	103.1	103.1	115.6	115.6	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Detroit	60.0	65.0	65.0	80.0	90.0	125.0	125.0	100.0	112.5	125.0	125.0	137.5	137.5	[21] 48	44	44	44	44	44	44	44	44	44	44	44	44
Indianapolis	65.0	70.0	75.0	75.0	85.0	125.0	125.0	112.5	125.0	125.0	125.0	135.0	140.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Kansas City, Mo.	62.5	68.8	68.8	75.0	90.0	110.0	110.0	107.5	107.5	125.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Los Angeles	50.0	50.0	50.0	62.5	75.0	87.5	100.0	100.0	100.0	100.0	100.0	112.5	112.5	48	48	48	48	44	44	44	44	44	44	44	44	44
Louisville	50.0	50.0	60.0	70.0	80.0	100.0	100.0	100.0	125.0	125.0	125.0	125.0	125.0	48	44	44	44	44	44	44	44	44	44	44	44	44
Memphis	62.5	65.0	65.0	75.0	87.5	100.0	-------	100.0	100.0	100.0	112.5	112.5	125.0	44	44	44	44	44	44	----	44	44	44	44	44	44
Milwaukee	56.3	62.5	62.5	70.0	80.0	100.0	100.0	90.0	100.0	112.5	112.5	112.5	120.0	[12] 44	[12] 44	[12] 44	[72] 44	44	44	44	44	44	44	44	44	44
Minneapolis	56.3	62.5	62.5	68.8	87.5	87.5	100.0	100.0	100.0	100.0	100.0	100.0	125.0	48	[10] 44	44	44	44	44	44	44	44	44	44	44	44
Newark, N. J.	62.5	68.8	72.5	75.0	87.5	112.5	112.5	112.5	125.0	150.0	150.0	150.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New Haven	62.5	62.5	62.5	80.0	92.5	106.3	106.3	100.0	106.3	125.0	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
New Orleans	62.5	62.5	62.5	75.0	75.0	100.0	100.0	100.0	100.0	106.3	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
New York	62.5	66.3	68.8	80.0	87.5	112.5	112.5	112.5	112.5	150.0	150.0	150.0	175.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Omaha	58.8	65.0	68.8	75.0	90.0	115.0	112.5	100.0	112.5	112.5	112.5	112.5	112.5	48	[12] 44	[12] 44	44	44	44	44	44	44	44	44	44	44
Philadelphia	60.0	60.0	70.0	92.5	92.5	112.5	112.5	100.0	112.5	125.0	125.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Pittsburgh	62.5	62.5	70.0	87.5	100.0	100.0	125.0	100.0	125.0	137.5	143.8	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Portland, Oreg.	62.5	62.5	70.0	87.5	100.0	112.5	101.3	101.3	112.5	112.5	112.5	112.5	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Providence	56.3	62.5	68.8	80.0	92.5	100.0	100.0	92.5	100.0	112.5	112.5	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
Richmond, Va.	56.3	62.5	62.5	80.0	92.5	100.0	100.0	100.0	100.0	100.0	125.0	125.0	125.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Louis	65.0	67.5	70.0	80.0	92.5	125.0	125.0	106.3	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44
St. Paul	56.3	62.5	62.5	68.8	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	125.0	48	[21] 48	[21] 48	44	44	44	44	44	44	44	44	44	44
Salt Lake City	62.5	62.5	68.8	81.3	100.0	112.5	100.0	90.0	100.0	112.5	112.5	112.5	112.5	44	44	44	44	44	44	44	44	44	44	44	44	44
San Francisco	75.0	75.0	75.0	87.5	100.0	112.5	125.0	112.5	112.5	125.0	125.0	125.0	137.5	44	44	44	44	44	44	44	44	44	44	44	44	44
Scranton	56.3	62.5	62.5	68.8	87.5	100.0	112.5	100.0	100.0	112.5	112.5	137.5	137.5	48	[21] 48	[21] 48	[21] 48	44	44	44	44	44	44	44	44	44
Seattle	62.5	62.5	75.0	87.5	100.0	112.5	112.5	100.0	112.5	112.5	112.5	112.5	112.5	44	44	44	44	40	44	44	44	44	44	44	44	44
Washington	56.3	62.5	70.0	80.0	92.5	98.0	125.0	125.0	125.0	150.0	150.0	150.0	150.0	44	44	44	44	44	44	44	44	44	44	44	44	44

Typesetting-machine operators: Book and job

Typesetting-machine operators: Book and job

Atlanta	43.8	46.9	46.9	46.9	46.9	57.5	[18] 75.0	80.0	80.0	80.0	80.0	80.0	100.0	48	48	48	48	48	48	48	44	44	44	44	44	44
Baltimore	46.9	46.9	50.0	50.0	60.4	81.3	83.3	83.3	90.9	90.9	90.9	90.9	90.9	48	48	48	48	48	48	48	48	44	44	44	44	44
Birmingham	52.5	54.5	57.3	57.3	57.3	78.1	80.0	80.0	80.0	80.0	85.2	92.5	92.5	48	48	48	48	48	48	48	44	44	44	44	44	44
Boston	45.8	47.9	50.0	54.2	59.4	77.1	91.5	91.5	91.5	96.5	96.5	96.5	100.0	48	48	48	48	48	48	48	44	44	44	44	44	44
Buffalo	50.0	50.0	53.1	59.4	59.4	71.9	95.5	95.5	95.5	104.5	109.1	111.4	115.9	48	48	48	48	48	48	48	44	44	44	44	44	44
Charleston, S. C.	----	37.5	50.0	50.0	50.0	50.0	103.4	103.4	[b] 95.5	88.6	95.5	88.6	88.6	----	48	48	48	48	48	48	44	44	44	44	44	44
Chicago	50.0	50.0	50.0	60.2	77.9	98.8	109.2	109.2	113.2	119.1	119.1	119.1	125.9	48	48	48	48	48	48	48	44	44	44	44	44	44
Cincinnati	49.0	52.1	54.2	54.2	58.3	81.3	104.5	104.5	104.5	109.1	109.1	109.1	113.6	48	48	48	48	48	44	44	44	44	44	44	44	44
Cleveland	53.8	53.8	62.5	62.5	68.8	87.5	93.8	93.8	93.8	100.0	109.1	111.4	113.6	48	48	48	48	48	48	48	44	44	44	44	44	44
Dallas	[12] 12.5	[12] 12.5	[12] 12.0	[12] 12.0	[12] 12.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	48	48	48	48	48	48	48	44	44	44	44	44	44
Denver	54.2	54.2	54.2	59.4	65.6	81.3	81.3	95.5	95.5	95.5	102.3	102.3	102.3	48	48	48	48	48	48	48	44	44	44	44	44	44
Detroit	55.0	55.0	60.5	60.5	85.0	100.0	100.0	100.0	105.0	105.0	105.0	120.0	125.0	48	48	48	48	48	48	48	48	44	44	48	44	44
Fall River	----	----	45.8	46.9	46.9	62.5	72.7	72.7	72.7	81.8	81.8	81.8	81.8	----	----	48	48	48	48	44	44	44	44	44	44	44
Indianapolis	50.0	50.0	56.3	56.3	60.4	81.3	100.0	92.7	95.5	95.5	98.0	100.0	102.3	48	48	48	48	48	44	44	44	44	44	44	44	44
Jacksonville	43.8	52.1	53.1	53.1	58.3	75.0	102.3	102.3	81.8	81.8	[b] 88.6	98.9	98.9	48	48	48	48	48	48	48	44	44	44	44	44	44
Kansas City, Mo	55.2	57.3	57.3	62.5	69.8	78.1	89.6	89.6	94.3	97.2	99.4	101.7	104.0	48	48	48	48	48	48	48	48	44	44	44	44	44
Little Rock	50.0	50.0	50.0	50.0	50.0	72.9	72.9	70.0	----	----	85.2	96.6	96.6	48	48	48	48	48	48	48	44	----	----	44	44	44
Los Angeles	58.3	60.4	60.4	62.5	70.8	81.3	104.5	104.5	104.5	110.2	110.2	116.6	116.6	48	48	48	48	48	44	44	44	44	44	44	44	44
Louisville	49.0	50.0	50.0	52.1	54.2	54.2	79.2	79.0	79.0	79.0	----	----	79.0	48	48	48	48	48	48	48	44	44	44	----	----	44
Manchester	35.4	35.4	37.5	39.6	41.7	66.7	77.3	79.5	79.5	79.5	79.5	79.5	79.5	48	48	48	48	48	48	48	44	44	44	44	44	44
Milwaukee	47.9	52.1	54.2	54.2	60.4	75.0	87.5	95.5	95.5	95.5	95.5	95.5	100.0	48	48	48	48	48	48	48	44	44	44	44	44	44
Minneapolis	50.0	50.0	52.1	52.1	61.5	87.5	87.5	95.5	95.5	95.5	95.5	95.5	95.5	48	48	48	48	48	48	48	44	44	44	44	44	44
Newark, N. J.	47.9	50.0	50.0	56.3	72.9	91.7	111.4	102.3	109.1	115.9	115.9	118.2	120.5	48	48	48	48	48	44	44	44	44	44	44	44	44
New Haven	45.8	45.8	45.8	45.8	45.8	58.3	58.3	86.4	86.4	86.4	86.4	86.4	86.4	48	48	48	48	48	48	48	44	44	44	44	44	44
New Orleans	----	53.3	53.3	53.3	53.3	76.7	76.7	78.4	78.4	78.4	78.4	78.4	78.4	----	45	45	45	45	45	45	44	44	44	44	44	44
New York	54.2	54.2	54.2	58.3	75.0	93.8	113.6	113.6	113.6	120.5	120.5	122.7	125.0	48	48	48	48	48	44	44	44	44	44	44	44	44
Omaha	50.0	53.1	53.1	53.1	68.8	87.5	93.2	93.2	93.2	93.2	93.2	93.2	100.0	48	48	48	48	48	48	48	44	44	44	44	44	44
Philadelphia	43.8	45.8	47.9	54.2	64.6	93.8	93.8	94.1	94.1	94.1	94.1	94.1	94.1	48	48	48	48	48	48	48	44	44	44	44	44	44
Pittsburgh	47.9	52.1	52.1	56.3	68.8	87.5	106.8	106.8	106.8	106.8	106.8	106.8	111.4	48	48	48	48	48	48	48	44	44	44	44	44	44
Portland, Oreg.	65.6	65.6	65.6	68.8	100.0	100.0	110.0	110.0	104.5	104.5	111.4	111.4	114.7	48	48	48	48	48	48	48	44	44	44	44	44	44
Providence	47.9	47.9	47.9	52.1	54.2	72.9	79.2	86.4	86.4	97.7	97.7	97.7	97.7	48	48	48	48	48	48	48	44	44	44	44	44	44
St. Louis	50.0	52.1	54.2	59.6	63.8	87.5	101.0	101.0	101.0	106.0	106.0	106.0	111.0	48	48	48	48	48	48	48	44	44	44	44	44	44
St. Paul	50.0	50.0	52.1	52.1	61.5	83.3	87.5	95.5	90.9	95.5	95.5	95.5	95.5	48	48	48	48	48	48	48	44	44	44	44	44	44

[10] 48 hours per week, September to April, inclusive.
[12] 48 hours per week, November to April, inclusive.
[12] 48 hours per week, December to March, inclusive.
[14] 48 hours per week, October to April, inclusive.
[18] Old scale; strike pending.
[b] Machinist operators.
[21] 44 hours per week, June to September, inclusive.
[42] Per 1,000 ems nonpariel.

UNION SCALES OF WAGES AND HOURS OF LABOR IN SPECIFIED OCCUPATIONS, 1913 TO 1927, BY CITY—Continued

Typesetting-machine operators: Book and job—Continued

City	Rates per hour (cents)													Hours per week											
	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1913	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
San Francisco	64.4	65.0	65.0	68.8	68.8	81.3	104.5	104.5	104.5	104.5	115.9	115.9	115.9	45	48	48	48	48	48	44	44	44	44	44	44	44
Scranton	45.8	45.8	50.0	50.0	54.2	81.3	85.4	85.2	90.9	90.9	110.0	100.0	102.3	48	48	48	48	48	48	48	44	44	44	44	44	44
Seattle												93.8	123.2												44	42
Washington	50.0	50.0	56.3	56.3	75.0	87.5	95.5	95.5	95.5	95.5	95.5	95.5	102.3	48	48	48	48	[24] 48	[24] 48	44	44	44	44	44	44	44
Typesetting-machine operators, daywork: Newspaper																										
Atlanta	[42] 8.5	[42] 8.5	[42] 8.5	[42] 8.5	[42] 8.5	[42] 9.0	[42] 10.5	[42] 10.0	[42] 10.0	[42] 10.5	[c] 12.0	[c] 12.0	[c] 12.0	48	48	48	48	48	48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	48	48
Baltimore	53.6	59.5	61.9	61.9	65.5	93.3	93.3	95.5	95.5	106.8	106.8	110.2	110.2	42	42	42	42	42	45	45	44	44	44	44	44	44
Birmingham	52.5	55.5	56.5	57.7	67.5	67.5	67.5	82.5	82.5	82.5	[42] 12.0	92.5	95.0	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	[25] 42	42	[25] 42
Boston	63.0	63.0	68.0	68.0	83.0	95.0	95.0	107.0	107.0	112.0	117.0	117.0	125.0	[26] 42	[26] 42	[26] 42	[26] 42	[26] 42	[26] 42	[26] 42	44	44	44	[26] 44	[25] 44	
Buffalo	50.0	50.0	53.1	59.4	65.6	71.9	87.5	87.5	87.5	95.8	95.8	102.1	102.1	48	48	48	48	48	48	48	48	48	48	48	48	48
Charleston, S.C.	[42] 9.0	[42] 9.0	[42] 9.0	[42] 9.0	[42] 9.0	57.1	94.8	94.8	87.5	87.5	87.5	87.5	87.5	[25] 39	[24] 39	[25] 39	[25] 39	[25] 39	[25] 42	48	48	48	48	48	48	48
Chicago	[47] 50.0	[47] 50.0	[47] 50.0	[48] 53.0	[49] 64.0	[49] 72.0	[115.0 / [50] 96.0	115.0	115.0	129.0	129.0	129.0	135.6	48	45	45	45	[25] 45	[25] 45	48	48	[29] 48	48	45	48	45	45
Cincinnati	52.1	56.3	56.3	56.3	87.5	107.3	107.3	107.3	113.3	113.3	113.8	113.8	113.8	[26] 47½	48	48	48	48	45	45	45	45	45	45	45	45
Cleveland	53.8	53.8	62.5	62.5	68.8	87.5	93.8	96.9	103.1	107.3	107.3	116.7	116.7	48	48	48	48	48	48	48	48	48	48	48	45	45
Dallas	[43] 12.5	[42] 12.0	[42] 12.0	[42] 12.0	[42] 12.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 16.3	[42] 16.3	39	[52] 39	[52] 39	[52] 39	[52] 39	[52] 39	[52] 39	[25] 36	[25] 36	[25] 36	[25] 36	[25] 36	[25] 36
Denver	63.3	63.3	63.3	72.7	72.7	97.8	97.8	93.3	93.3	103.3	103.3	103.3	103.3	45	45	45	45	45	45	45	45	45	45	45	45	45
Detroit	55.0	55.0	60.5	60.5	74.5	87.0	97.0	97.0	104.5	113.0	113.0	120.0	125.0	48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	[29] 48	45
Fall River	45.8	45.8	45.8	36.9	50.0	75.0	79.2	79.2	79.2	87.5	87.5	87.5	87.5	48	48	48	48	48	48	48	48	48	48	48	48	48
Indianapolis	50.0	50.0	56.3	56.3	60.4	81.3	93.8	89.6	100.0	100.0	100.0	104.2	106.3	48	48	48	48	48	48	48	48	48	48	48	48	48
Jacksonville	[43] 9.0	52.1	52.1	55.2	58.3	83.3	83.3	83.3	83.3	83.3	89.6	100.0	100.0	45	[29] 48	48	48	48	48	48	48	48	48	48	48	48
Kansas City, Mo	59.4	59.4	59.4	59.4	68.8	90.6	90.6	90.6	90.6	90.6	95.8	102.1	104.2	48	48	48	48	48	48	48	48	48	48	48	48	48
Little Rock	[43] 9.5	65.0	65.0	65.0	78.6	90.5	90.5	102.4	102.4	102.4	107.1	103.6	103.6	42	42	42	42	42	42	42	42	42	42	42	42	42
Los Angeles	62.2	64.4	66.7	66.7	75.6	86.7	86.7	101.1	101.1	107.8	107.8	114.0	114.0	45	45	45	45	45	45	45	45	45	45	45	45	45
Louisville	49.0	50.0	54.2	54.5	62.5	87.5	82.9	87.5	87.5	93.8	93.8	93.8	93.8	48	48	48	48	48	48	48	48	48	48	48	48	48
Manchester	35.4	35.4	37.5	39.6	41.7	66.7	70.8	72.9	72.9	80.2	82.3	83.3	83.3	48	48	48	48	48	48	48	48	48	48	48	48	48
Memphis	[42] 9.5	[42] 9.5	[42] 9.5	[42] 9.5	[33] 9.5	[42] 12.0	[42] 12.5	[42] 12.5	[42] 12.5	[42] 12.5	[42] 12.5	[42] 12.5	[42] 12.5	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	[25] 45	45	45	45
Milwaukee	45.8	50.0	54.2	56.3	56.3	77.1	93.8	93.8	93.8	97.9	102.5	102.5	106.3	48	48	47	48	48	48	48	48	48	48	48	48	48
Minneapolis	[42] 10.0	[42] 10.0	[42] 10.0	[42] 10.0	[42] 10.0	[42] 11.0	[42] 12.5	[42] 12.5	[42] 12.5	[42] 12.5	[42] 12.0	[42] 12.0	[42] 12.0	48	48	48	48	48	48	[35] 36	[35] 36	[35] 36	[35] 36	48	48	48
Newark, N. J.	60.9	60.9	63.0	69.6	76.1	89.1	110.9	110.9	110.9	110.9	119.6	121.7	130.4	46	46	46	46	46	46	46	46	46	46	46	46	46
New Haven	46.9	47.9	50.0	50.0	50.0	72.9	79.2	79.2	79.2	85.4	85.4	87.5	89.6	48	48	48	48	48	48	48	48	48	48	48	48	48
New York	66.7	66.7	66.7	71.1	66.7	122.2	122.2	122.2	122.2	126.9	133.3	133.3	140.0	45	45	45	45	45	45	45	48	48	48	48	48	48
Omaha	50.0	52.1	53.1	53.1	68.8	87.5	87.5	[42] 79.2	[42] 79.2	90.6	87.5	90.6	96.9	48	48	48	48	48	48	48	48	48	48	48	48	46
												87.5	91.3	48	48	48	48	48	48	48	48	48	48	48	48	48
																		[25] 45	[25] 45	[25] 45	48	46½	46½	45	45	45

New York	66.7	66.7	66.7	71.1	96.7	122.2	122.2	122.2	123.2	128.9	133.3	133.3	140.0	45	45	45	45	45	45	45	45	45	45	45	45
Omaha	50.0	53.1	53.1	53.1	68.8	87.5	87.5	87.5	87.5	90.6	90.6	90.6	96.9	48	48	48	48	48	48	48	48	48	48	48	48
Philadelphia	45.8	45.8	45.8	52.1	66.7	81.3	[45] 79.2	[45] 79.2	[45] 79.2	[46] 87.5	87.5	87.5	91.3	48	48	48	48	48	48	48	48	48	48	48	46
Pittsburgh	55.0	60.0	61.0	65.0	7.0	87.5	111.8	111.8	118.9	121.1	121.1	125.6	126.7	48	[25] 45	[25] 45	[25] 45	[25] 45	48	46½	46½	45	45	45	45
Portland, Oreg.	68.3	68.3	68.3	72.7	100.0	106.7	106.7	106.7	106.7	106.7	106.7	106.7	106.7	45	45	45	45	45	45	45	45	45	45	45	45
Providence	47.9	50.0	50.0	52.1	66.7	87.5	100.0	95.8	95.8	104.2	111.1	104.2	108.3	48	48	48	48	48	48	48	48	48	48	48	48
Richmond, Va.	41.7	45.8	45.8	56.3	[34] 56.3	[35] 56.3	87.5	87.5	87.5	87.5	87.5	94.8	94.8	48	48	48	48	48	48	48	48	48	48	48	48
St. Louis	[42] 11.0	[42] 11.0	[42] 11.5	[42] 11.5	[42] 11.5	[42] 15.0	[42] 15.0	[42] 15.0	[42] 15.0	[42] 17.0	[42] 17.5	[42] 18.2	110.9	[36] 39	[36] 39	[36] 42	[36] 42	[36] 42	46	46	46	46	46	46	46
St. Paul	54.5	54.5	54.5	63.0	63.0	94.0	88.8	89.8	89.8	93.8	101.3	101.3	101.3	48	48	48	[57] 48	[57] 48	[57] 48	[57] 48	[57] 48	[57] 48	[57] 48	48	48
Salt Lake City	[42] 10.0	[42] 10.0	[42] 10.0	[42] 10.0	[42] 11.0	[50] 11.0	[50] 11.0	[42] 13.5	[42] 13.5	[42] 13.5	[42] 15.0	[42] 15.0	[42] 15.0	48	[60] 48	[60] 48	[60] 48	[60] 48	[60] 46½	[60] 46½	[61] 46½	[61] 46½	[61] 46½	[20] 43½	[20] 43½
San Francisco	64.4	69.0	69.0	68.9	75.6	93.8	107.8	107.8	107.8	107.8	115.6	115.6	115.6	45	42	42	45	45	45	45	45	45	45	45	45
Scranton	47.9	47.9	52.1	52.1	60.4	81.3	87.5	87.5	95.8	95.8	104.2	110.4	112.5	48	48	48	48	48	48	48	48	48	48	48	48
Seattle	75.0	75.0	78.6	80.1	100.0	114.3	114.3	114.3	114.3	121.4	121.4	121.4	123.2	42	42	42	42	42	42	42	42	42	42	2	42
Washington	60.7	60.7	60.7	69.8	92.9	104.0	104.0	104.0	104.0	110.0	110.0	128.6	128.6	42	42	42	42	42	42	42	42	42	42	42	42

[24] 44 hours per week for 3 months between June 1 and Sept. 30.
[25] Minimum; maximum, 8 hours per day.
[26] Actual hours worked, minimum, 6; maximum 8 hours per day.
[28] Work 47½ hours, paid for 48.
[29] Maximum; minimum, 7 hours per day.
[42] Per 1,000 ems nonpareil.
[45] Nominal rate. All received more; $41 to $47 per week.
[46] Nominal rate. All received more; $43 to $49 per week.
[47] For 3,500 ems per hour; for 4,500 ems per hour 55 cents and 1 cent bonus for each additional 100 ems per hour.
[48] For 3,500 ems per hour; for 4,500 ems per hour, 58 cents and 1 cent bonus for each additional 100 ems per hour.
[49] For 3,500 ems per hour; for 4,500 ems per hour, 70 cents and 1 cent bonus for each additional 100 ems per hour.
[50] For 4,000 ems per hour; for 4,500 ems per hour, $1.06 and 1 cent bonus for each additional 100 ems per hour.
[51] For 4,500 ems per hour; 1 cent bonus for each additional 100 ems per hour.
[53] Maximum; minimum, 5½ hours per day.
[54] Per 1,000 ems nonpareil and 45 cents per day bonus.
[54] Nominal rate. All received more; $30 to $37 per week.
[55] Nominal rate. All received more; $40 to $45 per week.
[56] Minimum; maximum, 7½ hours per day.
[57] Maximum; minimum, 7½ hours per day.
[58] Per 1,000 ems nonpareil and $1 per day bonus.
[59] Per 1,000 ems nonpareil and $1.25 per day bonus.
[60] Maxinum; minimum, 6½ hours per day.
[61] Maximum; minimum, 40½ hours per week.
[*] Per 1,000 ems minion.

Wages and Hours of Labor of Woodworkers in Various Countries

THE second report of the International Union of Woodworkers on wages and working conditions in various countries contains the following data relating to wages and hours of labor of cabinetmakers, upholsterers, and shop joiners in large cities on October 1, 1926. While the figures have not been computed with exact uniformity, but according to the methods prevailing in the various countries, it is believed that in a general way they will "give some idea of the wages level in the various countries and enable us to make comparisons." In computing the index numbers of real wages, prices of food only are used, London being taken as the base or 100. Average exchange rates for the month ending October 11, 1926, as shown in the report, have been used in converting the various currencies into United States money.

WAGES AND HOURS OF LABOR OF CABINETMAKERS, UPHOLSTERERS, AND SHOP JOINERS IN SPECIFIED COUNTRIES ON OCTOBER 1, 1926

Country	Cabinetmakers				Upholsterers				Shop joiners			
	Average hourly wages	Normal weekly hours	Average weekly wages	Index numbers of real wages	Average hourly wages	Normal weekly hours	Average weekly wages	Index numbers of real wages	Average hourly wages	Normal weekly hours	Average weekly wages	Index numbers of real wages
Argentina (Buenos Ayres)	*Cents* 45.0	44	$19.80	.....	*Cents* 49.1	44	$21.60	.....	*Cents*	.....	.....	.....
Australia:												
New South Wales	60.7	44	26.71	116	60.7	44	26.71	116	64.8	44	$28.51	141
Queensland	61.2	44	26.93	.....	61.2	44	26.93	.....	66.4	44	29.22	.....
Victoria	56.9	48	27.31	.....	56.9	48	27.31	.....	63.9	44	28.12	.....
South Australia	52.6	48	25.25	.....	52.6	48	25.25	.....	61.8	44	27.19	.....
Western Australia	54.1	48	25.97	.....	52.6	48	25.25	.....	62.3	44	27.41	.....
Belgium	12.3	48	5.90	47	12.3	48	5.90	47	12.6	48	6.05	54
Brazil (Sao Paulo)	27.4	48	13.15	.....	38.0	48	18.24	.....	25.8	54	13.93	.....
Bulgaria	12.3	47	5.78	.....	12.0	47	5.64	.....	12.3	47	5.78	.....
Denmark (Copenhagen)	41.8	48	20.06	92	.....	.....	.....	.....	46.3	48	22.22	179
Germany	22.7	48	10.90	57	24.4	48	11.71	61	22.7	48	10.90	100
Finland	25.2	47	11.84	.....	27.7	47	13.02	.....	25.2	47	11.84	.....
France	15.4	48	7.39	.....	16.8	48	8.06	.....	18.2	48	8.74	.....
Great Britain	42.5	47	19.98	100	42.5	47	19.98	100	40.4	44	17.78	100
Netherlands	30.1	48	14.45	93	30.1	48	14.45	93	32.1	48	15.41	115
Yugoslavia:												
Bosnia-Herzegovina	18.0	48	8.64	.....	18.0	48	8.64	.....	18.0	48	8.64	.....
Slovenia	16.2	48	7.78	.....	16.2	48	7.78	.....	15.3	48	7.34	.....
New Zealand	.....	.....	.....	.....	.....	.....	.....	.....	54.6	44	24.02	.....
Norway	36.1	48	17.33	83	44.0	48	21.12	91	36.3	48	17.42	95
Austria	20.3	48	9.74	50	20.3	48	9.74	50	20.3	48	9.74	57
Poland	[1] 12.4	[2] 46	5.95	48	[1] 11.8	[2] 46	5.66	47	[1] 10.1	[2] 46	4.85	45
Portugal	12.8	48	6.14	31	.....	.....	.....	.....	11.5	48	5.52	32
Sweden	34.8	48	16.70	81	.....	.....	.....	.....	42.9	48	20.59	103
Switzerland	34.0	48	16.32	.....	34.0	48	16.32	.....	34.0	48	16.32	.....
Spain	23.0	48	11.04	.....	23.0	48	11.04	.....	20.7	48	9.94	.....
South Africa	54.6	48	26.21	.....	54.6	48	26.21	.....	80.9	44	35.60	.....
Czechoslovakia:												
Prague section	16.8	48	8.06	51	18.3	48	8.78	56	17.1	48	8.21	50
Reichenberg section	18.0	48	8.64	.....	18.0	48	8.64	.....	16.8	48	8.06	.....
Hungary	14.7	48	7.06	.....	15.8	48	7.58	.....	14.0	48	6.72	.....
United States	62.0	50	30.55	114	[3] 161.5	40	64.62	242	75.0	[2] 44	36.00	153

[1] Average of minimum and maximum rates paid.
[2] 48 hours are paid for.
[3] New York.

Earnings and Hours of Labor of Workers in Great Britain and Northern Ireland, 1924 [1]

IN MARCH, 1925, a general inquiry into the average weekly earnings and the weekly hours of labor of workpeople in Great Britain and Northern Ireland was instituted by the ministry of labor.

The board of trade had arranged, under the census of production order of 1923, to undertake an inquiry into production, industry by industry, in 1924. It was evident that the utility of the information so obtained would be considerably increased if up-to-date statistics could also be made available as to the wages paid and hours worked in each industry, in regard to which no comprehensive information had been collected since 1906, when a general inquiry was made by the labor department of the board of trade.

It was accordingly arranged, with the cooperation of the National Confederation of Employers' Organizations, that schedules should be sent to employers asking for the following particulars in regard to each of four weeks in 1924, viz., the weeks ended January 19, April 12, July 12, and October 18:

(*a*) The total number of workpeople at work, and, if possible, the numbers of males and of females respectively.
(*b*) The total wages paid to these workpeople, showing separately, if possible, the total wages paid to males and to females, respectively.
(*c*) The hours of labor in a full ordinary week, exclusive of mealtimes.
(*d*) The number of workpeople on short time, and the average number of hours lost per head by such workpeople.
(*e*) The aggregate number of man-hours worked.

Particulars as to the total wages paid to all workpeople during the whole of the year 1924 were also asked for. Employers were asked to include in their returns the whole of the operatives (including foremen, carters, warehousemen, etc.) at work on their premises during the weeks referred to, but to exclude managers, clerks, typists, commercial travelers, and salaried persons generally, as well as workpeople doing work at home on material supplied by the employer. In cases where one of the specified weeks was affected by holidays, breakdown, fire, strike, lockout or other exceptional circumstances, employers were asked to substitute particulars for the nearest week of an ordinary character; [2] in cases, however, where employment was wholly or partially suspended owing to bad trade no such substitution was to be made.

Government Industrial Establishments

THE only remaining group of workpeople for whom information has been collected is that of manual workers in Government industrial establishments. Statistics for this group are now available and are included in the tables which follow. The figures under this heading do not cover nonindustrial employees in the Government service, such as clerical staffs, office messengers, telegraphists, postal sorters, and postmen. Moreover, they exclude manual workers

[1] Reprinted from Ministry of Labor Gazette, London, July, 1927, pp. 250–252.
[2] In the case of the building industry, owing to a widespread dispute in the week ended July 12, particulars were obtained for the preceding week.

employed at certain of the smaller out-stations; the number of such manual workers, however, is not large, and the number included in the returns is sufficient to render the figures representative.

General Summary of Preliminary Results

WITH the publication of the figures for Government industrial establishments, and the completion of the preliminary statistics of the inquiry as a whole, a convenient opportunity is afforded to summarize the main results of the inquiry. Accordingly, in the tables which follow, the earnings and hours of labor in 1924 are shown for each of the main groups of industries covered, and for all these groups combined. Corresponding statistics for individual industries will be found in the articles published in previous issues of this Gazette, and it is proposed in subsequent issues to publish more detailed information for some of the more important industries.

The inquiry extended to all manufacturing industries and a number of the principal nonmanufacturing industries. The most important industries excluded were agriculture, coal mines, railways, docks, and the distributive trades. Of these, agriculture and dock labor present features requiring special treatment in the collection of statistics as to earnings, which rendered the form of questionnaire used for the present inquiry inapplicable; statistics as to earnings at coal mines and in the railway service had already been compiled and published by the mines department and the ministry of transport, respectively; and some information as to wages and hours of labor in the distributive trades was collected by the ministry of labor and published in a series of reports issued in 1926.

The total number of employers to whom inquiry forms were dispatched was nearly 300,000, and the total number of returns received giving sufficient information for use in the compilation of these statistics was nearly 130,000. The number of workpeople covered by these returns was about 5,000,000.

The average weekly earnings of all the workpeople covered by the returns, on the average of the four selected weeks, were 47s. 9d. per week; for males the figure was 56s. 3d., and for females it was 27s. 3d. Some industries, however, are more completely represented than others in the returns, the textile industries and the public utility services being relatively overweighted and the building industry underweighted. If corrections were made on this account the average earnings shown for males and for females separately would not be appreciably altered; but for males and females combined the average of 47s. 9d. would be raised slightly, though probably by not more than about 3d. to 6d. a week. These averages relate to workpeople of all ages, not to adults only.

If coal mining and railway service were included, on the basis of the information compiled by the mines department and the ministry of transport for 1924, the weekly earnings of all workpeople, in the industries covered by the tables which follow, together with coal mining and railway service, would average about 50s. per head.

The average normal full-time hours of labor—exclusive of mealtimes, except in the case of those shift workers for whom no definite

interval was agreed upon—in the industries dealt with in the following tables were approximately 47 per week in October, 1924, and for about 70 per cent of the workpeople they were 47 to 48 per week. The average of the hours actually worked—inclusive of short time and overtime—was over 45 in the week ended January 19, and about 46 in the other three weeks to which the figures relate.

Short time was being worked by nearly 12 per cent of the workpeople in the week ended January 19, and by between 9 and 10 per cent in the other three weeks. In each week the average number of hours lost by persons working short time was 11 or a little over, and the average number of hours thus lost, if distributed over all the workpeople covered by the returns, was equivalent to 1.3 per head in the week ended January 19 and 1.1 in each of the other weeks.

The foregoing general results are shown in further detail and analyzed by groups of industries below.

I.—Number of Returns Received and Number of Workpeople Covered

The number of effective returns received, giving information regarding earnings, and the average number of workpeople covered, as shown by the average of the numbers employed in each of the four selected weeks, are as shown below:

TABLE 1.—NUMBER OF RETURNS RECEIVED AND OF WORKPEOPLE COVERED IN INQUIRY, BY INDUSTRY GROUPS

Industry group	Number of—	
	Returns received	Workpeople covered
Pottery, brick, glass, chemical, etc.	4,764	276,014
Metal	25,397	1,355,328
Textile	7,693	1,017,381
Clothing	23,426	486,659
Food, drink, and tobacco	19,777	390,041
Woodworking	10,867	174,383
Paper, printing, etc.	6,505	233,483
Building and allied industries	12,883	279,452
Other industries [1]	11,013	304,117
Public utility services	4,930	473,860
Government industrial establishments	21	100,027
Total	127,276	5,090,745

[1] Including fellmongering and leather tanning, saddlery and leather goods, india rubber, brush and broom, pianos, organs, and musical instruments (other than metal), quarrying, metalliferous and shale mining, carting and warehousing, waste reclamation (other than metal), and miscellaneous industries.

The following table shows the total number of workpeople, including adults and juveniles, employed by firms which have made returns as to earnings, in each of the four specified weeks of 1924:

TABLE 2.—NUMBER OF WORKPEOPLE EMPLOYED IN SPECIFIED WEEKS BY FIRMS MAKING RETURNS, BY INDUSTRY GROUPS

Industry group	Number of workpeople employed in the week ended—			
	January 19	April 12	July 12	October 18
Pottery, brick, glass, chemical, etc	267,904	277,056	280,187	278,909
Metal	1,325,378	1,354,339	1,373,615	1,367,982
Textile	999,185	1,015,541	1,020,826	1,033,909
Clothing	467,343	491,407	496,471	491,413
Food, drink, and tobacco	380,275	378,829	398,868	402,192
Woodworking	166,501	173,010	178,013	180,007
Paper, printing, etc	229,995	231,918	233,641	236,379
Building and allied industries	255,500	283,549	287,201	291,559
Other industries [1]	295,532	303,433	306,928	310,577
Public utility services	463,742	469,460	482,387	479,852
Government industrial establishments	98,080	100,167	100,052	101,810
Total	4,949,435	5,078,709	5,158,189	5,176,649

[1] Including fellmongering and leather tanning, saddlery and leather goods, india rubber, brush and broom, pianos, organs and musical instruments (other than metal), quarrying, metalliferous and shale mining, carting and warehousing, waste reclamation (other than metal), and miscellaneous industries.

II.—Average Weekly Earnings

The following table shows the average actual earnings per head, in the four specified weeks, of the workpeople employed by firms making returns, together with the average earnings of males and of females, as shown by those returns which gave separate particulars. As already indicated, the various industries are not represented in equal proportions in the returns. If allowance were made for this the general average earnings for males and for females would not be appreciably altered, but for males and females combined the average would be raised by about 3d. to 6d. a week. It should be observed that the workpeople covered by the returns include workers of all ages, including boys and apprentices and other juveniles. Owing to the fact that a considerable proportion of firms were unable to separate the wages paid to males and females, respectively, the numbers of males and females for whom particulars are given separately in sections (B) and (C) of the table add to less than the total numbers given in section (A) of the table.

The relative levels of average earnings shown for the different industry groups are, of course, affected by the variations in the proportions of males and females, and of adults and juveniles employed.

TABLE 3.—AVERAGE ACTUAL WEEKLY EARNINGS[1] IN SPECIFIED WEEKS IN 1924 OF WORKPEOPLE IN SPECIFIED INDUSTRY GROUPS, BY SEX

Industry group	Number of workpeople covered [2]	Average earnings (for the time actually worked) in the week ending—								Average of the earnings in the four weeks	
		January 19		April 12		July 12		October 18			
		s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
(A) All workpeople											
Pottery, brick, glass, chemical, etc	276,014	46	3	48	1	49	5	48	10	48	2
Metal	1,355,328	50	8	52	1	52	0	51	9	51	7
Textile	1,017,381	37	2	37	10	37	9	38	2	37	9
Clothing	486,659	34	4	36	6	36	4	35	3	35	7
Food, drink, and tobacco	390,041	45	7	45	11	46	10	46	4	46	2
Woodworking	174,383	48	8	51	0	51	1	51	3	50	6
Paper, printing, etc	233,483	52	6	53	8	54	0	54	1	53	7
Building and allied industries	279,452	54	8	58	5	59	1	59	9	58	1
Other industries [3]	304,117	47	8	49	0	49	1	49	5	48	10
Public utility services	473,860	57	1	58	5	60	2	59	9	58	10
Government industrial establishments	100,027	57	2	58	8	59	7	61	8	59	4
Total	5,090,745	46	7	48	0	48	4	48	3	47	9
(B) Males											
Pottery, brick, glass, chemical, etc	171,702	54	1	56	6	58	1	57	3	56	6
Metal	1,101,102	53	7	55	2	55	1	54	11	54	8
Textile	257,834	51	5	51	5	51	2	51	9	51	6
Clothing	113,756	52	7	56	5	55	9	54	6	54	10
Food, drink, and tobacco	218,233	55	11	56	8	58	2	57	9	57	2
Woodworking	144,000	51	4	54	0	54	1	54	4	53	6
Paper, printing, etc	120,963	68	2	70	0	70	8	70	10	69	11
Building and allied industries	278,728	54	9	58	6	59	2	59	11	58	2
Other industries [3]	224,807	52	7	54	3	54	5	54	7	53	11
Public utility services	445,932	57	8	58	11	60	7	60	4	59	5
Government industrial establishments	41,538	64	3	66	1	66	3	65	8	65	7
Total	3,118,645	54	8	56	6	57	0	56	11	56	3
(C) Females											
Pottery, brick, glass, chemical, etc	45,914	24	3	24	9	24	8	25	1	24	8
Metal	106,183	24	11	25	2	25	5	25	7	25	3
Textile	383,459	27	4	28	1	27	11	28	5	27	11
Clothing	283,623	26	6	28	2	27	9	27	0	27	5
Food, drink, and tobacco	119,259	26	11	26	11	28	7	28	0	27	8
Woodworking	18,225	25	6	26	10	26	3	26	3	26	2
Paper, printing, etc	69,473	26	11	27	2	27	5	27	10	27	4
Building and allied industries	724	25	10	25	9	25	9	25	2	25	7
Other industries [3]	49,302	25	8	26	4	26	8	26	11	26	5
Public utility services	7,970	28	11	29	5	30	0	29	10	29	7
Government industrial establishments	2,034	37	10	40	6	39	0	39	3	39	2
Total	1,086,166	26	7	27	5	27	6	27	6	27	3

[1] Exchange rate of £=January, $4.269; April, $4.336; July, $4.354; October, $4.478.
[2] Averages of the numbers employed in the four weeks.
[3] Including fellmongering and leather tanning, saddlery and leather goods, india rubber, brush and broom, pianos, organs and musical instruments (other than metal), quarrying, metalliferous, and shale mining, carting and warehousing, waste reclamation (other than metal), and miscellaneous industries.

III.—Normal Hours of Labor

The following table shows the proportion of the workpeople employed by firms making returns on this subject, whose normal weekly hours, exclusive [3] of meal times, in a week in October, 1924, fell within the limits stated, and the average normal hours.

The underrepresentation of the building trades in these returns has resulted in a smaller proportion of workpeople being indicated as normally working "44 hours or less" than would otherwise have been the case. Correction on this account would raise the propor-

[3] Except in the case of those shift workers for whom no definite meal interval was agreed upon.

tion normally working "44 hours or less" to over 16 per cent and would reduce the percentages at 47 and 48 hours. The average hours would be correspondingly reduced to about 47.

TABLE 4.—PER CENT OF WORKPEOPLE IN SPECIFIED INDUSTRY GROUPS WORKING EACH CLASSIFIED NUMBER OF HOURS PER WEEK

Industry group	Number of workpeople covered [1]	Percentage of workpeople whose normal weekly hours were—						Average normal weekly hours
		44 or less	44¼ to 46¾	47	47¼ to 47¾	48	Over 48	
Pottery, brick, glass, chemical, etc	277,828	11.3	7.8	39.5	2.8	26.8	11.8	47.4
Metal	1,362,199	10.0	3.4	76.1	.9	4.6	5.0	46.7
Textile	1,031,821	3.6	1.8	2.2	.5	89.0	2.9	47.9
Clothing	487,318	18.5	15.2	8.1	2.3	52.6	3.3	46.7
Food, drink, and tobacco	398,911	15.5	8.8	19.2	2.7	39.8	14.0	47.5
Woodworking	179,516	25.1	9.2	39.6	2.3	10.1	13.7	46.8
Paper, printing, etc	238,004	11.0	5.0	2.8	2.3	75.3	3.6	47.3
Building and allied industries	289,783	67.2	12.6	5.5	.6	2.5	11.6	45.4
Other industries [2]	306,164	14.2	8.0	19.5	1.9	41.1	15.3	47.3
Public utility services	466,366	7.6	3.2	48.1	.4	28.1	12.6	47.6
Government industrial establishments	101,810	1.2	.1	65.3	.....	32.6	.8	47.3
All industries	5,139,720	13.7	5.8	33.7	1.3	38.2	7.3	47.1

[1] Averages of the numbers employed in the four weeks.
[2] Including fellmongering and leather tanning, saddlery and leather goods, india rubber, brush and broom, pianos, organs and musical instruments (other than metal) quarrying, metalliferous and shale mining, carting and warehousing, waste reclamation (other than metal), and miscellaneous industries.

IV.—Hours Actually Worked

The following table shows the average number of hours actually worked in the four specified weeks by the workpeople employed by firms who were able to supply these particulars:

TABLE 5.—AVERAGE HOURS ACTUALLY WORKED IN SPECIFIED WEEKS IN 1924 BY WORKPEOPLE IN SPECIFIED INDUSTRY GROUPS

Industry group	Number of workpeople covered [1]	Average hours worked in the week ended—				Average hours worked in the four weeks
		January 19	April 12	July 12	October 18	
Pottery, brick, glass, chemical, etc	167,179	45.7	46.3	46.4	46.3	46.2
Metal	941,509	45.5	46.4	46.4	46.1	46.1
Textile	559,568	44.9	44.9	44.9	45.3	45.0
Clothing	197,740	43.3	45.1	44.7	43.8	44.2
Food, drink, and tobacco	218,046	45.8	45.8	46.8	46.4	46.2
Woodworking	96,912	44.8	45.9	45.8	45.9	45.6
Paper, printing, etc	126,087	46.5	46.8	46.6	47.1	46.7
Building and allied industries	163,995	43.2	45.0	45.4	45.1	44.7
Other industries [2]	169,248	45.7	46.5	46.5	46.7	46.3
Public utility services	298,762	46.7	47.2	47.5	47.5	47.2
Government industrial establishments	97,691	46.1	46.3	46.3	46.5	46.3
All industries	3,036,737	45.3	46.0	46.1	46.0	45.8

[1] Averages of the numbers employed in the four weeks.
[2] Including fellmongering and leather tanning, saddlery, and leather goods, india rubber, brush and broom, pianos, organs and musical instruments (other than metal), quarrying, metalliferous and shale mining, carting and warehousing, waste reclamation (other than metal), and miscellaneous industries.

V.—Average Hourly Earnings

The following table shows the average earnings per hour of those workpeople covered by returns which showed the number of hours actually worked. As some firms were unable to give particulars of the number of hours worked, the average weekly earnings obtained by multiplying the average hourly earnings shown below by the average hours shown in Section IV do not correspond precisely with the average weekly earnings shown in Section II. Comparisons of the average earnings shown for different industry groups are, of course, affected by the different proportions of males and females and of adults and juveniles employed as between one industry group and another.

TABLE 6.—AVERAGE HOURLY EARNINGS OF WORKPEOPLE IN SPECIFIED INDUSTRY GROUPS IN SPECIFIED WEEKS IN 1924

Industry group	Number of workpeople covered [1]	Average hourly earnings in the week ended—				Average hourly earnings in the four weeks
		Jan. 19	Apr. 12	July 12	Oct. 18	
		d.	d.	d.	d.	d.
Pottery, brick, glass, chemical, etc.	167,179	12.7	12.9	13.1	13.0	12.9
Metal	941,509	13.4	13.5	13.6	13.5	13.5
Textile	559,568	10.1	10.2	10.2	10.2	10.2
Clothing	197,740	9.5	9.6	9.7	9.6	9.6
Food, drink, and tobacco	218,046	12.1	12.2	12.2	12.2	12.2
Woodworking	96,912	13.2	13.5	13.6	13.6	13.5
Paper, printing, etc.	126,087	13.8	14.0	14.2	14.0	14.0
Building and allied industries	163,995	15.0	15.5	15.6	15.8	15.5
Other industries [2]	169,248	12.6	12.7	12.7	12.8	12.7
Public utility services	298,762	14.3	14.4	14.6	14.6	14.5
Government industrial establishments	97,691	14.9	15.2	15.5	16.0	15.4
All industries	3,036,737	12.6	12.8	12.9	12.9	12.8

[1] Average of the numbers employed in the four weeks.
[2] Includes fellmongering and leather tanning, saddlery and leather goods, india rubber, brush and broom, pianos, organs and musical instruments (other than metal), quarrying, metalliferous and shale mining, carting and warehousing, waste reclamation (other than metal), and miscellaneous industries.

VI.—Extent of Short Time

The following table shows the proportion of workpeople employed by firms making returns who were reported to be working less than full time, together with the average number of hours lost per week by such workpeople, and the average time lost by all the workpeople covered by the returns. Workpeople "stood off" for the whole of any of the weeks specified have been regarded as unemployed and have not been taken into account in compiling the statistics.

TABLE 7.—PROPORTION OF WORKPEOPLE IN SPECIFIED INDUSTRY GROUPS WORKING SHORT TIME AND AVERAGE TIME LOST

Industry group	Number of workpeople covered [1]	Proportion of workpeople on short time in the week ended—			
		January 19	April 12	July 12	October 18
		Per cent	*Per cent*	*Per cent*	*Per cent*
Pottery, brick, glass, chemical, etc	256,166	10.6	8.0	7.5	8.3
Metal	1,299,698	9.2	7.9	7.2	8.6
Textile	934,891	20.4	18.9	19.8	17.6
Clothing	424,023	24.8	14.5	16.2	21.6
Food, drink, and tobacco	372,092	11.1	12.3	7.5	9.2
Woodworking	161,390	8.8	5.5	4.6	4.7
Paper, printing, etc	219,301	5.6	5.3	4.8	4.2
Building and allied industries	254,309	2.4	1.1	.9	.8
Other industries [2]	285,248	9.1	6.8	7.9	6.5
Public utility services	441,544	.9	.5	.3	.3
Government industrial establishments	74,537				
All industries	4,723,199	11.6	9.6	9.3	9.8

Industry group	Average number of hours lost (*a*) by those who worked less than full time and (*b*) by all workpeople covered in the week ended—							
	January 19		April 12		July 12		October 18	
	(*a*)	(*b*)	(*a*)	(*b*)	(*a*)	(*b*)	(*a*)	(*b*)
Pottery, brick, glass, chemical, etc	10.2	1.1	9.7	0.8	10.2	0.8	10.0	0.8
Metal	11.1	1.0	11.0	.9	11.1	.8	11.2	1.0
Textile	12.5	2.6	12.7	2.4	13.0	2.6	11.9	2.1
Clothing	11.3	2.8	9.5	1.4	9.7	1.6	11.1	2.4
Food, drink, and tobacco	8.6	1.0	8.9	1.1	8.2	.6	8.4	.8
Woodworking	8.9	.8	8.4	.5	9.0	.4	8.5	.4
Paper, printing, etc	10.2	.6	9.3	.5	8.1	.4	9.3	.4
Building and allied industries	10.6	.3	8.7	.1	13.7	.1	10.0	.1
Other industries [2]	9.8	.9	9.3	.6	9.5	.7	9.7	.6
Public utility services	12.9	.1	19.1	.1	20.3	.1	17.4	.1
Government industrial establishments								
All industries	11.4	1.3	11.1	1.1	11.3	1.1	11.0	1.1

[1] Averages of the numbers employed in the four weeks.

[2] Including fellmongering and leather tanning, saddlery and leather goods, india rubber, brush and broom, pianos, organs, and musical instruments (other than metal), quarrying, metalliferous and shale mining, carting and warehousing, waste reclamation (other than metal), and miscellaneous industries.

Wages in Rio Grande do Sul, Brazil, in 1927

THE following statement showing the daily wage rates prevailing in various occupations in the State of Rio Grande do Sul, Brazil, in 1927 is taken from a report of the United States vice consul, Fred E. Huhlein, at Porto Alegre, dated May 28, 1927:

DAILY WAGES IN SPECIFIED OCCUPATIONS IN RIO GRANDE DO SUL, BRAZIL, 1927

[Exchange rate of milreis = 11.79 cents]

Occupation	Daily wages in 1927		Occupation	Daily wages in 1927	
	Milreis	*U. S. currency*		*Milreis*	*U. S. currency*
Mechanics, skilled	15–20	$1.77–2.36	Electricians, ordinary	10–15	$1.18–1.77
Factory workers	10–12	1.18–1.41	Stevedores	10–12	1.18–1.41
Carpenters	15–20	1.77–2.36	Common laborers	6–10	.71–1.18
Bricklayers	13–20	1.53–2.36	Farm laborers, during harvest	6–7	.71–.83
Chauffeurs	8–10	.94–1.18	Farm laborers, other seasons	5	.59
Motormen, street cars	8–10	.94–1.18	Waiters	1–4	.12–.47
Conductors, street cars	8	.94	Chambermaids	1–4	.12–.47
Electricians, skilled	16–20	1.89–2.36			

Wages of Mine Workers in France, 1913, 1925, and 1926

THE following statistics on the wages of mine workers in France for specified periods are taken from the April-June, 1927, issue of the Bulletin de la Statistique Générale de la France (p. 256):

AVERAGE DAILY WAGES OF MINE WORKERS IN FRANCE, 1913, 1925, 1926, AND LAST QUARTER OF 1926.

Class of workers and dates	Douai	Arras	Strasbourg	Saint-Etienne	Chalon-Sur-Saone	Alais	Toulouse	Clermont	Whole country	
	Francs	*Francs*	*Francs*	*Francs*	*Francs*	*Francs*	*Francs*	*Francs*	*Francs*	*U. S. currency* [1]
Underground workers:										
1913	6.09	6.25	------	5.51	6.27	5.57	5.64	4.96	5.96	$1.15
1925	25.36	26.36	25.93	25.97	26.57	23.56	22.59	22.49	25.60	1.22
1926	30.05	31.29	31.80	31.50	31.82	28.21	27.36	26.75	30.68	.99
1926, last quarter	33.92	35.22	36.15	35.21	35.56	31.68	31.21	30.46	34.49	1.18
Surface workers:										
1913	------	4.11	------	4.06	4.09	3.69	3.93	3.66	4.02	.78
1925	19.32	19.49	19.26	19.54	18.87	17.20	17.26	17.39	18.89	.90
1926	26.50	27.13	27.66	27.33	27.04	24.50	23.83	23.68	26.69	.88
1926, last quarter	25.73	25.80	26.57	26.60	25.14	23.63	23.16	23.35	25.55	.88
Total workers (surface and underground):										
1913	5.57	5.72	------	5.07	5.27	4.98	4.96	4.61	5.40	1.04
1925	23.97	24.72	24.00	23.83	23.62	20.91	20.87	20.73	23.72	1.13
1926	28.31	29.35	29.41	28.66	28.21	25.14	25.24	24.72	28.37	.92
1926, last quarter	32.10	33.05	33.30	32.45	31.65	28.40	28.85	28.10	32.02	1.10

[1] Conversions of franc on basis of exchange rate as follows: 1913, 19.3 cents, or par; 1925, 4.77 cents, average for year; 1926, 3.24 cents, average for year; last quarter of 1926, 3.44 cents, average for quarter.

While in all cases there is a considerable increase in the number of francs received per day in 1926 as compared with 1925, the average daily wage for the whole country in the later year is lower when measured in United States currency, and even the very considerable increase in the number of francs received per day in the last quarter of 1926 does not bring the average daily wage for mine workers for the whole of France up to the average daily wage in dollars and cents for the year 1925.

Wages in Japan, October, 1926 [1]

THE average wages which prevailed at the close of October, 1926, in the 13 principal cities of Japan, according to statistics published by the Japanese Department of Commerce and Industry, were as follows:

[1] Report from U. S. consul, J. W. Ballantine, Tokyo, Japan, Jan. 25, 1927.

AVERAGE DAILY WAGES IN JAPAN IN OCTOBER, 1926, AND INDEX NUMBERS FOR 1925 AND 1926

[Yen at par=49.85 cents; average exchange rate for October, 1926=48.6612 cents]

Industry	Average daily wages, October, 1926		Index numbers (average for 1921-1923=100)	
	Yen	U. S. currency	October, 1925	October, 1926
Textile industry:				
Filature operatives, female	0.97	$0.47	101	101
Spinning-mill operatives, female	1.20	.58	107	111
Silk-throwing operatives, female	.92	.45	100	103
Cotton power-weaving operatives, female	1.05	.51	98	108
Silk, hand-weaving operatives, female	1.10	.54	93	96
Knitting-mill operatives, male	1.79	.87	99	105
Knitting-mill operatives, female	.69	.34	105	84
Average			100.7	101.1
Metal industry:				
Lathe workers	2.33	1.13	101	101
Finishers	2.36	1.15	101	102
Founders	2.28	1.11	101	103
Blacksmiths	2.27	1.10	102	105
Wooden-mold workers	2.40	1.17	102	103
Average			101.4	102.8
Ceramic industry:				
Potters	2.10	1.02	100	106
Glassworkers	2.05	1.00	107	106
Cement workers	1.97	.96	95	96
Brickmakers	1.83	.89	99	101
Tile makers	2.05	1.00	98	98
Average			99.8	101.4
Chemical industry:				
Drug makers	1.64	.80	98	113
Matchmakers, male	1.36	.66	91	82
Matchmakers, female	.60	.29	84	79
Oil pressers	1.97	.96	102	102
Makers of Japanese paper	1.52	.74	104	106
Makers of foreign style paper	1.61	.78	103	101
Leather makers	2.06	1.00	100	97
Average			97.4	97
Food industry:				
Flour-mill workers	2.11	1.03	102	103
Sake makers	1.66	.81	104	98
Soy makers	2.11	1.03	118	121
Sugar-mill workers	1.96	.95	117	119
Confectionery makers	2.05	1.00	109	104
Canners	1.79	.87	102	100
Average			108.5	107.5
Wearing-apparel industry:				
Tailors	1.74	.85	101	93
Cobblers	2.44	1.19	109	106
Clog makers	2.35	1.14	98	96
Average			102.7	98.3
Building industry:				
Carpenters	1.88	.91	105	103
Plasterers	2.91	1.42	110	105
Stonemasons	3.15	1.53	103	102
Bricklayers	3.35	1.63	101	99
Tile layers	3.25	1.58	104	102
Painters	3.47	1.69	108	110
Average			105.2	103.5
Woodworking industry:				
Sawyers	2.80	1.36	101	100
Joiners	2.27	1.10	104	100
Lacquer workers	2.37	1.15	108	106
Bamboo net makers	2.17	1.06	112	110
Mat makers	1.53	.74	106	102
Average			106.2	103.6

AVERAGE DAILY WAGES IN JAPAN IN OCTOBER, 1926, AND INDEX NUMBERS FOR 1925 AND 1926—Continued

Industry	Average daily wages, October, 1926		Index numbers (average for 1921–1923=100)	
	Yen	U. S. currency	October, 1925	October, 1926
Printing industry:				
Type makers	2.61	$1.27	106	106
Bookbinders	2.29	1.11	104	104
Average			105.0	105.0
Day laborers:				
Stevedores	2.02	.98	102	93
Day laborers, male	2.46	1.20	102	99
Day laborers, female	2.02	.98	106	103
Average			103.3	98.3
Fishermen	1.55	.75	97	98.2
Domestic service:				
House servants, male (including food and lodging)	[1] 16.34	[1] 7.95	96	102
House servants, female (including food and lodging)	[1] 12.13	[1] 5.90	103	102
Average			99.5	102
General average			102.5	101.8

[1] Per month.

Wages in Latvia, December, 1925 and 1926, and January to April, 1927

THE June, 1927, issue of the monthly bulletin of the Latvian Bureau of Statistics [1] contains data as to wages in certain occupations and industries in that country. Table 1, taken from the report, shows the average wages paid for a working-day of eight hours in specified occupations at the end of 1925 and 1926 and in the first four months of 1927:

TABLE 1.—AVERAGE RATES OF WAGES PER 8-HOUR DAY IN CERTAIN OCCUPATIONS IN RIGA, LATVIA [a]

Occupation	December, 1925	December, 1926	1927			
			January	February	March	April
Machinists	$1.55	$1.44	$1.35	$1.34	$1.30	$1.32
Machine operators	.90	.99	1.00	.99	.99	.98
Blacksmiths	.78	.83	.83	.84	.84	.84
Lathe hands	.83	.88	.85	.89	.87	.86
Forge hands	.80	.91	.91	.90	.89	.91
Cabinetmakers and joiners	.95	1.03	1.01	.97	1.02	1.01
Carpenters	.80	.84	.86	.89	.85	.86
Coopers	.88	.99	.97	1.02	1.01	1.02
Masons	1.01	1.17	1.16	1.14	1.11	1.11
Skilled workers	.89	.95	.93	.94	.95	.95
Unskilled workers	.60	.62	.62	.63	.63	.64

[a] Conversions made on basis of lat=19.3 cents.

[1] Latvia. Bureau de Statistique. Bulletin Mensuel, No. 6, Riga, June, 1927.

Table 2 shows the average wages of skilled, semiskilled, and unskilled workers in certain industry groups in April, 1927:

TABLE 2.—AVERAGE WAGE RATES PER 8-HOUR DAY IN SPECIFIED INDUSTRY GROUPS IN RIGA, LATVIA, IN APRIL, 1927 [1]

Industry	Skilled workers		Semiskilled workers		Unskilled workers	
	Males	Females	Males	Females	Males	Females
Wood	$1.07	----------	$0.70	$0.42	$0.63	$0.37
Furniture	1.02	----------	.71	.37	.68	.36
Mechanical	.87	----------	.68	.43	.61	.36
Rolling stock (railroad)	.91	----------	.72	----------	.62	.43
Ceramic	.87	----------	.73	----------	.56	.35
Building and roads	1.08	----------	.77	----------	.70	.37
Chemical	.89	----------	.76	.44	.67	.39
Textile	.84	$0.45	.70	.40	.60	.41
Clothing	1.10	.51	.63	.46	----------	.41
Leather	.89	----------	.72	.52	.66	.41
Food	1.13	----------	.86	.42	.62	.37
Liquor and tobacco	1.28	----------	.76	.42	.58	.39
Paper	1.90	----------	.71	.37	.48	.36
Printing and binding	1.77	1.34	.92	.61	----------	----------

[1] Conversions made on basis of lat=19.3 cents.

The report also contains data on cooperative societies, work of employment exchanges, strikes and lockouts, membership of sick funds, cost of living, and wholesale and retail prices.

Wages in Poland, March, 1927

THE wage rates given below for different occupations in various localities in Poland are taken from the May 20, 1927, issue of Informations Statistiques, published by the Central Statistical Office of the Republic (pp. 359–362). They are minimum rates provided in collective agreements or established by trade-unions and do not include family allowances nor payments in kind.

MINIMUM DAILY WAGES IN SPECIFIED INDUSTRIES IN POLAND, MARCH 31, 1927, BY LOCALITY AND OCCUPATION

[Zloty at par=19.3 cents; exchange rate for March 31, 1927=11.42 cents]

Industry, locality, and occupation	Wage per 8-hour day		Industry, locality, and occupation	Wage per 8-hour day	
	Zlotys	U. S. currency		Zlotys	U. S. currency
Coal mines			*Coal mines*—Continued		
Basin of Dabrowa and Krakow:			Basin of Upper Silesia:		
Underground workers—			Underground workers—		
Pick miners	7.28	$0.83	Pick miners	10.02 9.22	$1.14 1.05
Helpers, over 24 years of age	4.34	.50	Drivers	4.28	.49
Young persons	2.66	.30	Young persons	1.66	.19
Surface workers—			Surface workers—		
Skilled miners	5.60	.64	Skilled laborers	7.12	.81
Helpers, over 24 years of age	3.92	.45	Unskilled laborers	3.76	.43
Women	2.24	.26	Women	2.32	.26
Young persons	1.68	.19	Young persons	1.36	.16

MINIMUM DAILY WAGES IN SPECIFIED INDUSTRIES IN POLAND, MARCH 31, 1927, BY LOCALITY AND OCCUPATION—Continued

Industry, locality, and occupation	Wage per 8-hour day	
	Zlotys	U. S. currency
Zinc and lead mines		
Basin of Upper Silesia:		
Underground workers—		
Pick miners	7.64	$0.87
Drivers	4.84	.55
Young persons	1.25	.14
Surface workers—		
Skilled laborers	6.80	.78
Unskilled laborers	5.04	.58
Women	2.24	.26
Young persons	1.08	.12
Oil wells		
Boryslaw:		
Borers	10.15	1.16
Skilled helpers	6.78	.77
Manual laborers	4.88	.56
Young persons	2.70	.31
Iron works and coke ovens		
Upper Silesia:		
Skilled workers	6.08	.69
Skilled helpers	5.28	.60
Unskilled laborers	4.64	.53
Women	3.12	.36
Young persons	.88	.10
Metal industry		
Warsaw:		
Artisans	8.50	.97
Skilled helpers	5.04	.58
Unskilled laborers	4.40	.50
Women	3.28	.37
Young persons	2.40	.27
Lodz:		
Artisans	6.56	.75
Skilled helpers	5.04	.58
Unskilled laborers	4.24	.48
Posen:		
Artisans	6.40	.73
Skilled laborers	4.80	.55
Unskilled laborers	4.64	.53
Young persons	2.08	.24
Upper Silesia:		
Artisans	6.08	.69
Skilled helpers	5.28	.60
Unskilled laborers	4.40	.50
Women	2.96	.34
Young persons	.88	.10
Oil refining		
Boryslaw:		
Distillers and refiners of oil	8.91	1.02
Rectifiers of petroleum, refiners of petroleum and of parafine	6.78	.77
Helpers and manual laborers	4.88	.56
Women and young persons	2.70	.31
Textile industry		
Lodz:		
Cotton weavers on Jacquard looms up to 84-inch	7.20	.82
Cotton spinners, male	7.77	.89
Cotton spinners, female	4.81	.55
Manual laborers	3.85	.44
Sweepers	3.29	.38

Industry, locality, and occupation	Wage per 8-hour day	
	Zlotys	U. S. currency
Textile industry—Continued		
Bialystok:		
Spinners on 4 automatic machines	6.78	$0.77
Weavers on 6 to 10 simple looms	5.35	.61
Laborers in dye works	4.77	.54
Bielsko:		
Spinners	7.30	.83
Manual laborers	3.96	.45
Wood industry		
Posen:		
Carpenters and artisans	5.84	.67
Unskilled laborers	4.40	.50
Food industry		
Bakeries:		
Warsaw—		
Skilled bakers	17.02	1.94
Bakers' helpers	10.01	1.14
Lodz—Bakers, first-class	10.00	1.14
Posen—Bakers	7.84	.90
Mills:		
Warsaw—		
Millers	13.11	1.50
Unskilled laborers	11.37	1.30
Building industry		
Warsaw:		
Masons	8.64	.99
Carpenters	8.40	.96
Unskilled laborers	5.28	.60
Lodz:		
Masons and carpenters	8.00	.91
Unskilled laborers	4.00	.46
Basin of Dabrowa:		
Artisans, first-class	8.00	.91
Unskilled laborers	4.24	.48
Young persons	2.40	.27
Krakow:		
Masons and carpenters	7.72	.88
Helpers	3.40	.39
Young persons	2.36	.27
Lemberg:		
Masons and carpenters	9.08	1.04
Helpers	4.88	.56
Women and young persons	2.96	.34
Posen:		
Masons and carpenters	8.52	.97
Building laborers	4.80	.55
Katowice:		
Masons and carpenters	8.32	.95
Building laborers	4.88	.56
Printing industry		
Warsaw:		
Hand compositors	18.25	2.08
Press feeders	9.13	1.04
Lemberg:		
Hand compositors	18.61	2.13
Press feeders	9.31	1.06
Krakow:		
Hand compositors	16.58	1.89
Press feeders	8.29	.95
Posen:		
Hand compositors	11.50	1.31
Press feeders	4.60	.53

TREND OF EMPLOYMENT

Employment in Selected Manufacturing Industries in July, 1927

EMPLOYMENT in manufacturing industries decreased 2 per cent in July as compared with June, and pay-roll totals decreased 4.5 per cent.

The usual July closing for inventory taking and the season for repairs and vacations were largely responsible for these decreases.

The level of employment in July, 1927, also, was 2.8 per cent lower than in July, 1926, and pay-roll totals were 2.3 per cent lower.

The Bureau of Labor Statistics' weighted index of employment for July, 1927, is 87.3, as compared with 89.1 for June, 1927, 89.7 for May, 1927, and 89.8 for July, 1926; the weighted index of pay-roll totals for July, 1927, is 89.1, as compared with 93.3 for June, 1927, 95.6 for May, 1927, and 91.2 for July, 1926.

The report for July, 1927, is based on returns made to the Bureau of Labor Statistics by 10,676 establishments in 54 of the principal manufacturing industries. These establishments in July had 2,949,682 employees, whose combined earnings in one week were $76,187,103.

Comparison of Employment and Pay-roll Totals in June and July, 1927

THIRTEEN of the 54 individual industries had more employees in July than in June, the leading industries in this respect being the seasonal boots and shoes and ice cream. The other employment increases, all of which were small, were in the slaughtering and meat packing, paper box, men's clothing, paper and pulp, flour, sugar refining, cement, steam fittings, leather, cigars, and electric car building and repairing industries. Only the first five industries mentioned showed increased pay-roll totals as well as increased employment, but women's clothing, cast-iron pipe, and fertilizers also had increased pay-roll totals.

Very large decreases in employment were reported in the pottery and stove industries, the percentage changes being 20.5 per cent and 16.4 per cent, respectively. The automobile, hosiery, rubber boot, and shipbuilding industries fell off over 6 per cent each in employment; confectionery, 5.7 per cent; woolen goods, glass, agricultural implements, and pianos, over 4 per cent each.

The iron and steel industry fell off only 2.1 per cent in employment, but reported a decrease of 11 per cent in pay-roll totals. The automobile industry on the other hand reported decreases of 6.2 per cent in employment, and of only 4.7 per cent in pay-roll totals, and petroleum refining with 0.5 per cent fewer employees reported decreased pay-roll totals of 5.8 per cent.

Employment in the leather group of industries, as a whole, increased 3.5 per cent in July as compared with June, but there was decreased employment in all other groups except the tobacco group, in which there was no change.

The level of employment was 1.8 per cent higher in July than in June in the Mountain geographic division, but each of the remaining eight divisions reported a decreased volume of employment, the greatest decrease being 3.3 per cent in the East North Central division.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN JUNE AND JULY, 1927

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		June, 1927	July, 1927		June, 1927	July, 1927	
Food and kindred products	**1,640**	**214,521**	**212,535**	(1)	**$5,548,770**	**$5,493,032**	(1)
Slaughtering and meat packing	189	81,930	81,943	+(2)	2,142,217	2,154,939	+0.6
Confectionery	302	31,381	29,578	−5.7	589,289	542,658	−7.9
Ice cream	208	10,898	11,319	+3.9	353,791	372,725	+5.4
Flour	314	14,567	14,956	+2.7	390,615	389,095	−0.4
Baking	613	65,453	64,318	−1.7	1,759,837	1,730,857	−1.6
Sugar refining, cane	14	10,292	10,421	+1.3	313,021	302,758	−3.3
Textiles and their products	**1,913**	**602,297**	**590,744**	(1)	**11,955,449**	**11,500,705**	(1)
Cotton goods	486	241,063	239,851	−0.5	3,961,489	3,852,605	−2.7
Hosiery and knit goods	247	81,648	76,526	−6.3	1,569,749	1,385,701	−11.7
Silk goods	195	55,194	54,609	−1.1	1,185,068	1,137,118	−4.0
Woolen and worsted goods	189	60,551	57,898	−4.4	1,349,391	1,278,466	−5.3
Carpets and rugs	29	20,457	20,236	−1.1	556,711	515,827	−7.3
Dyeing and finishing textiles	101	31,002	30,383	−2.0	750,040	714,314	−4.8
Clothing, men's	291	62,779	62,879	+0.2	1,557,195	1,596,823	+2.5
Shirts and collars	93	18,411	18,156	−1.4	301,602	300,494	−0.4
Clothing, women's	202	20,313	19,753	−2.8	468,528	486,927	+3.9
Millinery and lace goods	80	10,879	10,453	−3.9	255,676	232,430	−9.1
Iron and steel and their products	**1,794**	**658,059**	**644,682**	(1)	**19,524,779**	**18,027,01**	(1)
Iron and steel	207	267,895	262,246	−2.1	8,160,227	7,260,419	−11.0
Cast-iron pipe	47	14,442	14,184	−1.8	344,338	346,592	+0.7
Structural ironwork	160	23,677	23,626	−0.2	704,579	680,209	−3.5
Foundry and machine-shop products	972	238,119	234,718	−1.4	7,086,239	6,762,047	−4.6
Hardware	68	32,963	31,907	−3.2	827,824	761,101	−8.1
Machine tools	145	28,234	27,424	−2.9	866,512	809,185	−6.6
Steam fittings and steam and hot-water heating apparatus	113	38,175	38,417	+0.6	1,130,244	1,086,455	−3.9
Stoves	82	14,554	12,160	−16.4	404,816	321,004	−20.7
Lumber and its products	**1,150**	**216,955**	**216,240**	(1)	**4,822,310**	**4,654,785**	(1)
Lumber, sawmills	465	124,198	123,715	−0.4	2,542,355	2,448,865	−3.7
Lumber, millwork	265	32,262	32,032	−0.7	807,838	780,128	−3.4
Furniture	420	60,495	60,493	−(2)	1,472,117	1,425,792	−3.1
Leather and its products	**354**	**115,312**	**119,548**	(1)	**2,649,621**	**2,799,555**	(1)
Leather	129	26,666	26,885	+0.8	672,199	662,243	−1.5
Boots and shoes	225	88,646	92,663	+4.5	1,977,422	2,137,312	+8.1
Paper and printing	**898**	**171,753**	**170,803**	(1)	**5,584,554**	**5,485,770**	(1)
Paper and pulp	216	56,001	56,090	+0.2	1,468,144	1,441,251	−1.8
Paper boxes	179	18,654	18,763	+0.6	408,828	412,910	+1.0
Printing, book and job	296	47,988	47,249	−1.5	1,707,013	1,666,287	−2.4
Printing, newspapers	207	49,110	48,701	−0.8	2,000,569	1,965,322	−1.8
Chemicals and allied products	**317**	**82,887**	**82,184**	(1)	**2,508,733**	**2,378,130**	(1)
Chemicals	130	31,888	31,510	−1.2	898,076	852,002	−5.1
Fertilizers	133	6,568	6,457	−1.7	139,778	140,808	+0.7
Petroleum refining	54	44,431	44,217	−0.5	1,470,879	1,385,320	−5.8
Stone, clay, and glass products	**656**	**115,477**	**110,946**	(1)	**3,076,314**	**2,850,880**	(1)
Cement	97	26,954	27,220	+1.0	817,391	797,145	−2.5
Brick, tile, and terra cotta	386	35,231	35,010	−0.6	919,716	886,624	−3.6
Pottery	56	12,510	9,942	−20.5	308,353	237,793	−22.9
Glass	117	40,782	38,774	−4.9	1,030,854	929,318	−9.8

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

[2] Less than one-tenth of 1 per cent.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN JUNE AND JULY, 1927—Continued

Industry	Establishments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		June, 1927	July, 1927		June, 1927	July, 1927	
Metal products, other than iron and steel	**213**	**50,055**	**49,340**	(1)	**1,350,676**	**1,280,104**	(1)
Stamped and enameled ware	66	18,831	18,519	−1.7	473,706	446,150	−5.8
Brass, bronze, and copper products	147	31,224	30,821	−1.3	876,970	833,954	−4.9
Tobacco products	**179**	**44,635**	**44,553**	(1)	**814,037**	**803,889**	(1)
Chewing and smoking tobacco and snuff	30	8,285	8,106	−2.2	137,598	134,115	−2.5
Cigars and cigarettes	149	36,350	36,447	+0.3	676,439	669,694	−1.0
Vehicles for land transportation	**1,159**	**477,691**	**456,970**	(1)	**14,451,219**	**13,748,035**	(1)
Automobiles	197	314,037	294,492	−6.2	9,499,483	9,049,540	−4.7
Carriages and wagons	68	1,668	1,600	−4.1	37,439	36,125	−3.5
Car building and repairing, electric-railroad	400	26,700	26,866	+0.6	833,034	808,989	−2.9
Car building and repairing, steam-railroad	494	135,286	134,012	−0.9	4,081,263	3,853,381	−5.6
Miscellaneous industries	**403**	**260,637**	**251,137**	(1)	**7,683,678**	**7,165,286**	(1)
Agricultural implements	84	22,969	21,898	−4.7	653,275	601,942	−7.9
Electrical machinery, apparatus, and supplies	173	124,500	120,791	−3.0	3,701,281	3,404,455	−8.0
Pianos and organs	40	7,148	6,824	−4.5	201,996	185,508	−8.2
Rubber boots and shoes	10	17,596	16,398	−6.8	436,996	404,967	−7.3
Automobile tires	56	57,831	56,595	−2.1	1,814,588	1,723,176	−5.0
Shipbuilding, steel	40	30,593	28,631	−6.4	875,542	845,238	−3.5
All industries	**10,676**	**3,010,279**	**2,949,682**	(1)	**79,970,140**	**76,187,103**	(1)

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISIONS							
New England	1,424	420,269	414,709	−1.3	$10,360,614	$10,097,034	−2.5
Middle Atlantic	2,534	833,819	820,432	−1.6	23,617,856	22,516,346	−4.7
East North Central	2,778	979,875	947,189	−3.3	28,807,420	26,999,881	−6.3
West North Central	1,004	156,709	155,258	−0.9	3,987,830	3,881,856	−2.7
South Atlantic	1,161	288,262	285,092	−1.1	5,358,522	5,176,079	−3.4
East South Central	473	104,047	101,919	−2.0	2,038,698	1,946,303	−4.5
West South Central	460	85,667	84,038	−1.9	1,854,318	1,790,220	−3.5
Mountain	184	27,477	27,982	+1.8	764,818	753,684	−1.5
Pacific	658	114,154	113,063	−1.0	3,180,064	3,025,700	−4.9
All divisions	**10,676**	**3,010,279**	**2,949,682**	(1)	**79,970,140**	**76,187,103**	(1)

[1] The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

TABLE 2.—PER CENTS OF CHANGE, JUNE TO JULY, 1927—12 GROUPS OF INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group by the number of employees, or wages paid, in the industries]

Group	Per cent of change, June, 1927, to July, 1927		Group	Per cent of change, June, 1927, to July, 1927	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	−0.9	−0.9	Metal products, other than iron and steel	−1.3	−5.0
Textiles and their products	−2.1	−3.1	Tobacco products	(1)	−1.3
Iron and steel and their products	−2.1	−7.8	Vehicles for land transportation	−3.3	−5.1
Lumber and its products	−0.4	−3.6	Miscellaneous industries	−4.6	−5.1
Leather and its products	+3.5	+5.1			
Paper and printing	−0.6	−1.8			
Chemicals and allied products	−1.0	−4.9	**All industries**	**−2.0**	**−4.5**
Stone, clay, and glass products	−4.6	−8.2			

1 No change.

Comparison of Employment and Pay-Roll Totals in July, 1927, and July, 1926

EMPLOYMENT in manufacturing industries was 2.8 per cent lower in July, 1927, than in July, 1926, and pay-roll totals were 2.3 per cent lower.

In this comparison increases of 5 per cent in employment and of 9.6 per cent in pay-roll totals are found in the textile group of industries, these being due largely to increases of 14.1 per cent and 24.8 per cent, in the two items, in the cotton goods industry, and to improved conditions in the women's clothing industry.

Substantial increases over the 12-month period appeared also in the food and tobacco groups and in the group of miscellaneous industries.

The volume of employment was decidedly lower, however, in the iron and steel; lumber; stone, clay, and glass; vehicle; chemical; and nonferrous metal groups of industries, and slightly lower in the leather and paper groups.

The New England, South Atlantic, and Mountain geographic divisions each had a greater volume of employment in July, 1927, than in July, 1926, the increase in the South Atlantic division being 2.9 per cent. The decreases in employment in the remaining six divisions ranged from 1 per cent in the West North Central division to 7.8 per cent in the East South Central division.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS, JULY, 1927, WITH JULY, 1926

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change, July, 1927, compared with July, 1926		Industry	Per cent of change, July, 1927, compared with July, 1926	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products	**+0.8**	**+2.1**	**Paper and printing**—Contd.		
Slaughtering and meat packing	+4.0	+5.6	Paper boxes	−4.0	−1.8
Confectionery	−3.4	−1.0	Printing, book and job	−1.0	−0.1
Ice cream	−6.5	−7.5	Printing, newspapers	+4.2	+4.5
Flour	+0.8	−1.4	**Chemicals and allied products**	**−4.1**	**−1.9**
Baking	(1)	+0.9	Chemicals	−0.1	+1.9
Sugar refining, cane	+7.3	+8.6	Fertilizers	−13.2	−9.0
Textiles and their products	**+5.0**	**+9.6**	Petroleum refining	−6.0	−4.4
Cotton goods	+14.1	+24.8	**Stone, clay, and glass products**	**−6.3**	**−6.8**
Hosiery and knit goods	−0.2	+0.8	Cement	−3.5	−2.4
Silk goods	+2.3	+4.0	Brick, tile, and terra cotta	−5.5	−5.1
Woolen and worsted goods	−2.0	−1.3	Pottery	−16.6	−19.2
Carpets and rugs	+9.1	+9.7	Glass	−4.5	−6.2
Dyeing and finishing textiles	+3.8	+6.6	**Metal products, other than iron and steel**	**−5.1**	**−5.4**
Clothing, men's	+0.7	+3.0	Stamped and enameled ware	−9.5	−2.7
Shirts and collars	−5.1	+2.2	Brass, bronze, and copper products	−3.2	−6.3
Clothing, women's	+8.8	+19.0	**Tobacco products**	**+1.1**	**+1.8**
Millinery and lace goods	−3.1	−2.2	Chewing and smoking tobacco and snuff	−7.8	−4.9
Iron and steel and their products	**−7.2**	**−9.0**	Cigars and cigarettes	+2.4	+2.8
Iron and steel	−5.5	−10.0	**Vehicles for land transportation**	**−9.4**	**−7.8**
Cast-iron pipe	−12.2	−11.0	Automobiles	−9.8	−8.5
Structural ironwork	−9.1	−7.2	Carriages and wagons	−33.6	−23.2
Foundry and machine-shop products	−7.6	−8.2	Car building and repairing, electric-railroad	+2.5	+2.1
Hardware	−6.7	−8.0	Car building and repairing, steam-railroad	−8.8	−7.5
Machine tools	−8.9	−10.0	**Miscellaneous industries**	**+0.9**	**+2.6**
Steam fittings and steam and hot-water heating apparatus	−3.9	−5.6	Agricultural implements	−7.4	−9.1
Stoves	−14.6	−11.7	Electrical machinery, apparatus and supplies	−4.6	−4.4
Lumber and its products	**−8.6**	**−6.3**	Pianos and organs	−9.8	−11.9
Lumber, sawmills	−10.5	−8.4	Rubber boots and shoes	+25.7	+30.2
Lumber, millwork	−9.3	−8.0	Automobile tires	+2.6	+2.1
Furniture	−2.0	+1.9	Shipbuilding, steel	+4.0	+6.9
Leather and its products	**−0.3**	**−0.1**	**All industries**	**−2.8**	**−2.3**
Leather	−0.1	−1.0			
Boots and shoes	−0.3	+0.2			
Paper and printing	**−0.3**	**+0.5**			
Paper and pulp	−2.8	−3.1			

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISIONS			GEOGRAPHIC DIVISIONS—con.		
New England	+0.4	+2.4	West South Central	−7.4	−3.2
Middle Atlantic	−5.0	−6.2	Mountain	+0.2	+3.2
East North Central	−4.1	−3.1	Pacific	−1.2	−0.2
West North Central	−1.0	−0.6			
South Atlantic	+2.9	+1.9	**All divisions**	**−2.8**	**−2.3**
East South Central	−7.8	−7.8			

[1] No change.

Per Capita Earnings

PER CAPITA earnings in July, 1927, in the 54 industries combined, were 2.5 per cent lower than in June, 1927, and 0.5 per cent higher than in July, 1926.

Thirteen industries showed a gain in per capita earnings in July, 1927, as compared with June, 1927, while 37 industries showed a gain in July, 1927, as compared with July, 1926.

In the comparison between July and June, 1927, the one large increase, 6.8 per cent, was in the women's clothing industry, while the outstanding decrease, 9.1 per cent, was in the iron and steel industry.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS, JULY, 1927, WITH JUNE, 1927, AND JULY, 1926

Industry	Per cent of change July, 1927, compared with—		Industry	Per cent of change July, 1927, compared with—	
	June, 1927	July, 1926		June, 1927	July, 1926
Clothing, women's	+6.8	+9.4	Furniture	−3.1	+1.9
Boots and shoes	+3.4	+.4	Foundry and machine-shop products	−3.2	−.7
Shipbuilding, steel	+3.2	+2.6	Agricultural implements	−3.3	−2.0
Cast-iron pipe	+2.5	+1.3	Lumber, sawmills	−3.3	+2.4
Fertilizers	+2.5	+4.5	Structural ironwork	−3.3	+2.2
Clothing, men's	+2.4	+2.4	Cement	−3.4	+1.2
Automobiles	+1.6	+1.4	Car building and repairing, electric-railroad	−3.5	−.3
Ice cream	+1.4	−1.0	Brass, bronze, and copper products	−3.7	−3.4
Shirts and collars	+1.0	+7.5	Machine tools	−3.8	−1.2
Carriages and wagons	+.6	+15.6	Pianos and organs	−3.8	−2.4
Slaughtering and meat packing	+.6	+1.7	Chemicals	−4.0	+2.0
Paper boxes	+.4	+2.4	Stamped and enameled ware	−4.3	+7.4
Baking	+.1	+1.0	Steam fitting and steam and hot-water heating apparatus	−4.5	−1.9
Chewing and smoking tobacco and snuff	−.4	+2.8	Sugar refining, cane	−4.5	+1.6
Rubber boots and shoes	−.5	+3.4	Car building and repairing, steam-railroad	−4.7	+1.7
Printing, book and job	−.8	+1.1	Hardware	−5.0	−1.4
Woolen and worsted goods	−.9	+.5	Stoves	−5.1	+3.3
Printing, newspapers	−1.0	+.3	Electrical machinery, apparatus, and supplies	−5.2	(1)
Cigars and cigarettes	−1.3	+.4	Glass	−5.2	−1.9
Paper and pulp	−2.0	−.2	Petroleum refining	−5.3	+1.5
Confectionery	−2.3	+2.5	Millinery and lace goods	−5.4	+.5
Cotton goods	−2.3	+9.6	Hosiery and knit goods	−5.8	+1.0
Leather	−2.3	−1.2	Carpets and rugs	−6.3	+.7
Dyeing and finishing textiles	−2.8	+2.5	Iron and steel	−9.1	−4.8
Lumber, millwork	−2.8	+1.4			
Automobile tires	−3.0	−.5			
Brick, tile, and terra cotta	−3.0	+.5			
Flour	−3.0	−2.0			
Pottery	−3.0	−3.0			
Silk goods	−3.0	+1.7			

[1] No change.

Wage Changes

SIXTY-ONE establishments in 20 industries reported increases in wage rates during the month ending July 15, 1927. These increases averaged 5.1 per cent and affected 1,588 employees, or 15 per cent of the total number in the establishments concerned.

Nineteen establishments in 12 industries reported decreases in wage rates during the same period. The decreases averaged 8.8 per cent and affected 3,571 employees, or 70 per cent of all employees in the establishments concerned.

TABLE 5.—WAGE ADJUSTMENTS OCCURRING BETWEEN JUNE 15 AND JULY 15, 1927

Industry	Establishments		Per cent of increase or decrease in wage rates		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees: In establishments reporting increase or decrease in wage rates	Per cent of employees: In all establishments reporting
Increases							
Confectionery	302	1	4.8	4.8	12	5	(1)
Baking	613	1	5.0	5.0	4	33	(1)
Hosiery and knit goods	247	1	14.0	14.0	7	23	(1)
Clothing, men's	291	1	10.0	10.0	13	100	(1)
Clothing, women's	202	1	2.0	2.0	15	8	(1)
Iron and steel	207	1	3.8	3.8	60	16	(1)
Structural ironwork	160	1	2.5	2.5	14	11	(1)
Foundry and machine-shop products	972	3	4.0–10.0	6.2	31	18	(1)
Leather	129	2	6.3–10.0	8.6	8	6	(1)
Paper and pulp	216	1	9.3	9.3	31	34	(1)
Paper boxes	179	1	10.0	10.0	12	11	(1)
Printing, book and job	296	2	2.0–15.0	7.2	10	20	(1)
Printing, newspapers	207	2	4.0	4.0	135	45	(1)
Chemicals	130	2	5.0–17.0	6.2	59	12	(1)
Stamped and enameled ware	66	1	7.0	7.0	3	11	(1)
Brass, bronze, and copper products	147	1	3.0	3.0	4	33	(1)
Automobiles	197	2	5.0– 7.0	6.9	266	14	(1)
Car building and repairing, electric-railroad	400	10	2.3	2.3	295	100	1
Car building and repairing, steam-railroad	494	25	3.0– 9.7	5.5	519	10	(1)
Electrical machinery, apparatus, and supplies	173	2	5.0	5.0	90	9	(1)
Decreases							
Slaughtering and meat packing	189	1	20.0	20.0	12	23	(1)
Confectionery	302	1	10.0	10.0	20	27	(1)
Woolen and worsted goods	189	1	5.0	5.0	189	100	(1)
Iron and steel	207	1	2.5	2.5	40	7	(1)
Foundry and machine-shop products	972	1	10.0	10.0	110	22	(1)
Steam fittings and steam and hot-water heating apparatus	113	1	6.0	6.0	470	100	1
Lumber, sawmills	465	3	10.0	10.0	1,976	100	2
Lumber, millwork	265	5	10.0–14.0	10.5	284	90	1
Furniture	420	1	15.0	15.0	25	11	(1)
Pottery	56	2	10.0	10.0	17	30	(1)
Stamped and enameled ware	66	1	5.0	5.0	78	100	(1)
Automobiles	197	1	7.0	7.0	350	56	(1)

[1] Less than one-half of 1 per cent.

Indexes of Employment and Pay-Roll Totals in Manufacturing Industries

INDEX numbers for July, 1927, and for May and June, 1927, and July, 1926, showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 industries surveyed by the Bureau of Labor Statistics, together with general indexes for the combined 12 groups of industries appear in Table 6.

The general index of employment for July, 1927, is 87.3, this number being 2 per cent lower than the index for June, 1927, 2.7 per cent lower than the index for May, 1927, and 2.8 per cent lower than the

index for July, 1926. The general index of pay-roll totals for July, 1927, is 89.1, this number being 4.5 per cent lower than the index for June, 1927, 6.8 per cent lower than the index for May, 1927, and 2.3 per cent lower than the index for July, 1926.

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JULY, 1926, AND MAY, JUNE, AND JULY, 1927

[Monthly average, 1923=100]

Industry	Employment				Pay-roll totals			
	1926, July	1927			1926, July	1927		
		May	June	July		May	June	July
General index	**89.8**	**89.7**	**89.1**	**87.3**	**91.2**	**95.6**	**93.3**	**89.1**
Food and kindred products	**89.2**	**86.6**	**90.7**	**89.9**	**93.5**	**92.7**	**96.4**	**95.5**
Slaughtering and meat packing	80.4	78.4	83.6	83.6	83.5	83.1	87.6	88.2
Confectionery	75.7	75.0	77.5	73.1	81.5	84.4	87.6	80.7
Ice cream	115.1	95.8	103.5	107.6	126.1	102.8	110.7	116.6
Flour	86.9	84.3	85.3	87.6	89.8	87.4	88.9	88.5
Baking	103.0	100.5	104.8	103.0	107.7	107.4	110.4	108.7
Sugar refining, cane	93.2	96.4	98.7	100.0	93.0	100.8	104.4	101.0
Textiles and their products	**80.2**	**86.8**	**86.0**	**84.2**	**76.2**	**87.0**	**86.2**	**83.5**
Cotton goods	76.4	87.3	87.6	87.2	69.0	88.8	88.5	86.1
Hosiery and knit goods	91.2	97.6	97.2	91.0	98.1	115.7	112.0	98.9
Silk goods	94.5	100.3	97.8	96.7	97.4	108.3	105.6	101.3
Woolen and worsted goods	76.2	77.8	78.2	74.7	74.4	76.5	77.5	73.4
Carpets and rugs	87.1	96.5	96.0	95.0	80.5	96.6	95.2	88.3
Dyeing and finishing textiles	91.8	98.3	97.2	95.3	89.1	101.3	99.7	95.0
Clothing, men's	82.1	78.5	82.5	82.7	77.0	67.4	77.3	79.3
Shirts and collars	80.8	78.3	77.7	76.7	77.6	81.0	79.6	79.3
Clothing, women's	69.1	85.4	77.3	75.2	63.2	82.3	72.4	75.2
Millinery and lace goods	64.4	69.8	64.9	62.4	63.4	72.7	68.2	62.0
Iron and steel and their products	**91.7**	**88.1**	**86.9**	**85.1**	**93.0**	**93.5**	**91.8**	**84.6**
Iron and steel	95.7	94.4	92.3	90.4	95.9	99.2	97.0	86.3
Cast-iron pipe	111.1	101.7	99.9	98.1	113.0	104.1	99.9	100.6
Structural ironwork	105.1	94.5	95.7	95.5	109.2	101.9	105.0	101.3
Foundry and machine-shop products	87.9	83.2	82.3	81.2	88.7	87.2	85.4	81.4
Hardware	85.1	82.9	82.0	79.4	90.3	91.8	90.4	83.1
Machine tools	101.3	96.2	95.1	92.3	109.5	107.1	105.5	98.5
Steam fittings and steam and hot-water heating apparatus	94.8	89.9	90.6	91.1	98.2	96.0	96.4	92.7
Stoves	78.8	80.8	80.5	67.3	73.4	82.3	81.7	64.8
Lumber and its products	**91.6**	**83.8**	**84.0**	**83.7**	**95.4**	**92.7**	**92.7**	**89.4**
Lumber, sawmills	89.8	80.4	80.7	80.4	94.6	89.5	90.1	86.7
Lumber, millwork	98.5	89.0	89.9	89.3	102.3	96.8	97.5	94.1
Furniture	93.5	92.3	91.6	91.6	93.9	100.9	98.8	95.7
Leather and its products	**88.5**	**85.5**	**85.2**	**88.2**	**86.8**	**81.8**	**82.5**	**86.7**
Leather	88.3	87.4	87.5	88.2	88.7	88.4	89.1	87.8
Boots and shoes	88.5	84.9	84.4	88.2	86.1	79.2	79.9	86.3
Paper and printing	**102.1**	**102.8**	**102.4**	**101.8**	**108.5**	**112.6**	**111.0**	**109.0**
Paper and pulp	94.9	92.2	92.0	92.2	98.3	98.7	97.0	95.3
Paper boxes	99.0	94.4	94.5	95.0	105.7	104.2	102.8	103.8
Printing, book and job	102.6	103.6	103.2	101.6	111.7	115.2	114.4	111.6
Printing, newspapers	109.8	115.9	115.3	114.4	115.8	125.6	123.3	121.0
Chemicals and allied products	**93.2**	**94.3**	**90.3**	**89.4**	**96.9**	**100.2**	**100.0**	**95.1**
Chemicals	93.0	93.2	94.0	92.9	100.7	106.0	108.1	102.6
Fertilizers	74.3	89.9	65.6	64.5	84.1	95.2	76.0	76.5
Petroleum	101.8	97.6	96.2	95.7	96.4	95.2	97.9	92.2
Stone, clay, and glass products	**100.8**	**98.9**	**99.0**	**94.4**	**104.0**	**107.9**	**105.6**	**96.9**
Cement	96.7	90.4	92.3	93.3	99.9	101.8	100.0	97.5
Brick, tile, and terra cotta	109.5	104.0	104.1	103.5	112.6	112.3	110.8	106.9
Pottery	97.9	103.7	102.6	81.6	100.6	111.4	105.4	81.3
Glass	94.6	94.9	94.9	90.3	99.1	105.2	103.1	93.0
Metal products, other than iron and steel	**94.3**	**93.5**	**90.7**	**89.5**	**91.9**	**95.1**	**91.5**	**86.9**
Stamped and enameled ware	91.5	86.1	84.2	82.8	80.6	85.9	83.2	78.4
Brass, bronze, and copper products	95.6	96.8	93.7	92.5	96.0	98.5	94.6	90.0

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—JULY, 1926, AND MAY, JUNE, AND JULY, 1927—Continued

Industry	Employment				Pay-roll totals			
	1926, July	1927			1926, July	1927		
		May	June	July		May	June	July
Tobacco products	**83.7**	**82.4**	**84.6**	**84.6**	**85.2**	**84.6**	**87.8**	**86.7**
Chewing and smoking tobacco and snuff	94.7	89.0	89.2	87.3	101.4	94.4	98.9	96.4
Cigars and cigarettes	82.3	81.6	84.0	84.3	83.3	83.5	86.5	85.6
Vehicles for land transportation	**96.8**	**86.9**	**85.1**	**82.3**	**88.3**	**94.2**	**85.8**	**81.4**
Automobiles	105.7	107.2	101.6	95.3	100.4	116.5	96.4	91.9
Carriages and wagons	101.8	74.1	70.5	67.6	95.8	80.4	76.3	73.6
Car building and repairing, electric-railroad	88.1	88.4	89.8	90.3	88.5	92.6	93.1	90.4
Car building and repairing, steam-railroad	81.1	74.3	74.7	74.0	80.3	80.4	78.8	74.3
Miscellaneous industries	**93.4**	**100.3**	**98.7**	**94.2**	**97.0**	**109.3**	**104.9**	**99.5**
Agricultural implements	92.1	91.2	89.5	85.3	102.4	106.2	101.1	93.1
Electrical machinery, apparatus, and supplies	96.4	92.7	94.8	92.0	97.9	100.2	101.7	93.6
Pianos and organs	87.8	82.9	82.9	79.2	89.7	88.1	86.0	79.0
Rubber boots and shoes	64.1	87.0	86.5	80.6	69.3	100.6	97.4	90.2
Automobile tires	108.6	116.0	113.8	111.4	111.9	124.5	120.2	114.2
Shipbuilding, steel	89.7	103.2	99.7	93.3	93.6	110.9	103.7	100.1

Table 7 shows the general index of employment in manufacturing industries and the general index of pay-roll totals from January, 1923, to July, 1927.

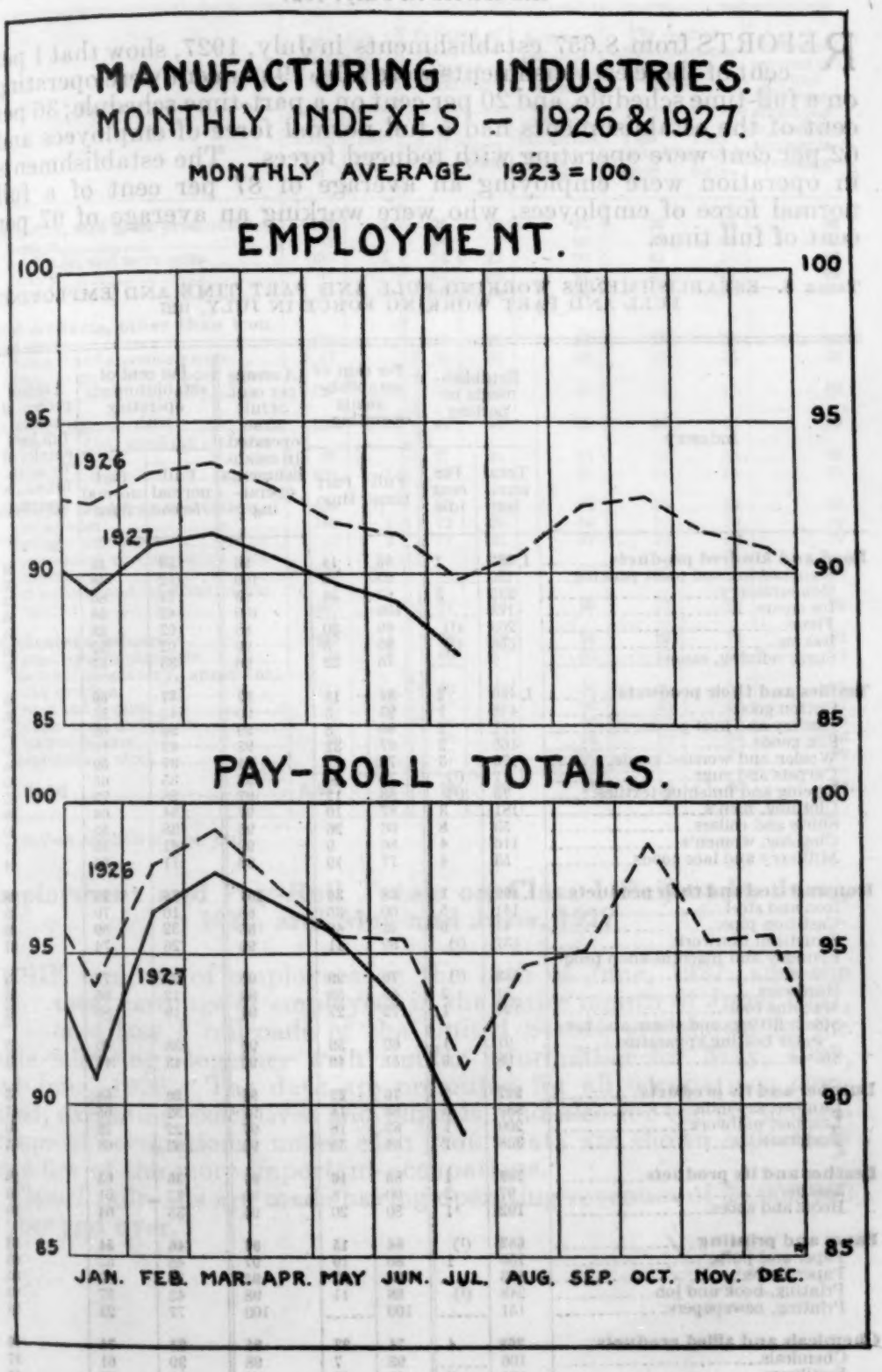
Following Table 7 is a graph made from index numbers, showing clearly the course of employment for each month of 1926 and for each completed month of 1927. This chart makes possible a comparison between corresponding months of the two years. The chart represents the 54 separate industries combined and shows the course of pay-roll totals as well as the course of employment.

TABLE 7.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO JULY, 1927

[Monthly average, 1923=100]

Month	Employment					Pay-roll totals				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
January	98.0	95.4	90.0	92.3	89.4	91.8	94.5	90.0	93.9	90.9
February	99.6	96.6	91.6	93.3	91.0	95.2	99.4	95.1	97.9	96.4
March	101.8	96.4	92.3	93.7	91.4	100.3	99.0	96.6	99.1	97.7
April	101.8	94.5	92.1	92.8	90.6	101.3	96.9	94.2	97.2	96.6
May	101.8	90.8	90.9	91.7	89.7	104.8	92.4	94.4	95.6	95.6
June	101.9	87.9	90.1	91.3	89.1	104.7	87.0	91.7	95.5	93.3
July	100.4	84.8	89.3	89.8	87.3	99.9	80.8	89.6	91.2	89.1
August	99.7	85.0	89.9	90.7	.....	99.3	83.5	91.4	94.6	.....
September	99.8	86.7	90.9	92.2	.....	100.0	86.0	90.4	95.1	.....
October	99.3	87.9	92.3	92.5	.....	102.3	88.5	96.2	98.6	.....
November	98.7	87.8	92.5	91.4	.....	101.0	87.6	96.2	95.4	.....
December	96.9	89.4	92.6	90.9	.....	98.9	91.7	97.3	95.6	.....
Average	**100.0**	**90.3**	**91.3**	**91.9**	[1] **89.8**	**100.0**	**90.6**	**93.6**	**95.8**	[1] **94.2**

[1] Average for 7 months.


MANUFACTURING INDUSTRIES.
MONTHLY INDEXES — 1926 & 1927.
MONTHLY AVERAGE 1923 = 100.
EMPLOYMENT.
100
95
90
85
1926
1927
PAY-ROLL TOTALS.
JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEP. OCT. NOV. DEC.

Proportion of Time Worked and Force Employed in Manufacturing Industries in July, 1927

REPORTS from 8,657 establishments in July, 1927, show that 1 per cent of these establishments were idle, 79 per cent were operating on a full-time schedule, and 20 per cent on a part-time schedule; 36 per cent of the establishments had a full normal force of employees and 62 per cent were operating with reduced forces. The establishments in operation were employing an average of 87 per cent of a full normal force of employees, who were working an average of 97 per cent of full time.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN JULY, 1927

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of normal full force employed by establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Food and kindred products	**1,392**	**1**	**85**	**14**	**96**	**50**	**49**	**89**
Slaughtering and meat packing	150	------	95	5	100	52	48	93
Confectionery	235	3	63	34	93	11	86	65
Ice cream	173	------	100	------	100	42	58	88
Flour	269	(1)	69	30	88	62	38	94
Baking	556	(1)	95	5	99	62	37	96
Sugar refining, cane	9	------	78	22	96	33	67	96
Textiles and their products	**1,450**	**2**	**84**	**14**	**97**	**37**	**60**	**89**
Cotton goods	443	1	93	5	99	44	55	96
Hosiery and knit goods	172	2	90	8	99	30	69	86
Silk goods	165	2	67	31	93	42	56	92
Woolen and worsted goods	175	3	70	27	94	37	59	86
Carpets and rugs	17	(1)	76	24	96	35	65	80
Dyeing and finishing textiles	75	(1)	88	12	97	28	72	85
Clothing, men's	181	3	87	10	97	34	64	88
Shirts and collars	53	8	66	26	96	38	55	90
Clothing, women's	116	4	86	9	99	41	55	89
Millinery and lace goods	53	4	77	19	96	11	85	64
Iron and steel and their products	**1,499**	**1**	**68**	**30**	**101**	**24**	**75**	**78**
Iron and steel	141	5	60	35	88	16	79	80
Cast-iron pipe	44	9	43	48	86	32	59	89
Structural ironwork	137	(1)	89	11	99	26	74	87
Foundry and machine-shop products	843	(1)	70	29	95	22	77	83
Hardware	51	2	45	53	89	12	86	83
Machine tools	124	1	72	27	97	19	80	82
Steam fittings and steam and hot-water heating apparatus	91	1	60	38	95	38	60	92
Stoves	68	9	51	40	92	43	49	84
Lumber and its products	**927**	**2**	**76**	**22**	**96**	**30**	**68**	**85**
Lumber, sawmills	389	3	83	14	97	32	65	87
Lumber, millwork	200	1	82	18	97	22	78	80
Furniture	338	1	64	35	93	33	66	85
Leather and its products	**289**	**1**	**83**	**16**	**97**	**36**	**63**	**89**
Leather	97	2	90	8	99	37	61	90
Boots and shoes	192	1	80	20	96	35	64	89
Paper and printing	**682**	**(1)**	**84**	**15**	**97**	**46**	**54**	**93**
Paper and pulp	150	1	80	19	97	45	53	93
Paper boxes	133	------	63	37	95	18	82	85
Printing, book and job	248	(1)	88	11	98	43	57	93
Printing, newspapers	151	------	100	------	100	77	23	98
Chemicals and allied products	**269**	**4**	**74**	**23**	**95**	**23**	**74**	**70**
Chemicals	106	------	93	7	98	39	61	87
Fertilizers	124	8	49	43	89	10	82	48
Petroleum refining	39	------	100	------	100	21	79	88

[1] Less than one-half of 1 per cent.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN JULY, 1927—Continued

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of normal full force employed by establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Stone, clay, and glass products	**562**	**3**	**78**	**19**	**96**	**39**	**58**	**90**
Cement	83	.....	94	6	99	37	63	93
Brick, tile, and terra cotta	339	4	74	22	95	41	55	92
Pottery	47	.....	62	38	91	23	77	75
Glass	93	3	86	11	96	41	56	87
Metal products, other than iron and steel	**174**	.....	**72**	**28**	**96**	**24**	**76**	**83**
Stamped and enameled ware	47	.....	85	15	98	28	72	83
Brass, bronze, and copper products	127	.....	68	32	96	33	77	82
Tobacco products	**134**	**1**	**69**	**30**	**95**	**36**	**63**	**90**
Chewing and smoking tobacco and snuff	26	.....	77	23	94	42	58	86
Cigars and cigarettes	108	2	67	31	95	34	64	91
Vehicles for land transportation	**950**	(1)	**86**	**14**	**98**	**43**	**57**	**89**
Automobiles	140	1	72	26	96	20	79	79
Carriages and wagons	62	2	77	21	97	29	69	77
Car building and repairing, electric-railroad	343	(1)	90	9	98	61	38	96
Car building and repairing, steam-railroad	405	.....	87	13	98	37	63	88
Miscellaneous industries	**329**	**1**	**70**	**29**	**95**	**25**	**74**	**81**
Agricultural implements	75	3	60	37	93	17	80	73
Electrical machinery, apparatus, and supplies	135	.....	70	30	96	29	71	83
Pianos and organs	30	3	57	40	92	23	73	81
Rubber boots and shoes	9	11	56	33	96	33	56	97
Automobile tires	50	.....	76	24	96	26	74	85
Shipbuilding, steel	30	.....	97	3	100	27	73	79
Total	**8,657**	**1**	**79**	**20**	**97**	**36**	**62**	**87**

[1] Less than one-half of 1 per cent.

Employment and Pay-Roll Totals on Class I Railroads, June, 1926, and May and June, 1927

THE number of employees on the 15th of June, 1927, and the total earnings of employees in the entire month of June, 1927, on Class I railroads of the United States, are shown in the table following, together with similar information for May, 1927, and June, 1926. The data are presented for all occupations combined, excluding executives and officials, and also for the six general groups of occupations; under each group data are shown separately for a few of the more important occupations.

Class I railroads are roads having operating revenues of $1,000,000 a year and over.

EMPLOYMENT AND TOTAL EARNINGS OF RAILROAD EMPLOYEES—JUNE, 1926, AND MAY AND JUNE, 1927

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	June, 1926	May, 1927	June, 1927	June, 1926	May, 1927	June, 1927
Professional, clerical, and general	285,376	281,783	281,851	$39,067,056	$39,346,160	$39,641,213
Clerks	167,554	164,019	163,820	21,697,276	21,671,265	21,828,144
Steongraphers and typists	25,482	25,265	25,313	3,136,833	3,149,697	3,199,365
Maintenance of way and structures	458,306	457,367	482,453	42,955,373	42,427,791	45,119,703
Laborers, extra gang and work train	80,843	80,795	90,911	6,663,632	6,408,603	7,342,901
Laborers, track and roadway section	235,624	239,430	250,323	17,790,825	17,629,536	18,856,432
Maintenance of equipment and stores	516,753	490,133	493,059	69,119,075	65,260,959	65,615,168
Carmen	112,092	104,958	105,341	16,441,246	15,853,522	15,970,598
Machinists	60,723	58,747	59,032	9,509,989	9,392,699	9,422,292
Skilled trades helpers	113,791	107,529	108,541	12,454,154	12,141,301	12,282,934
Laborers (shops, engine houses, power plants, and stores)	42,196	41,460	41,373	3,960,663	4,009,640	3,905,597
Common laborers (shops, engine houses, power plants, and stores)	60,565	55,915	57,029	4,958,741	4,565,934	4,700,606
Transportation, other than train, engine, and yard	209,525	205,404	205,918	25,523,339	25,522,880	25,534,382
Station agents	30,655	30,412	30,445	4,737,393	4,751,148	4,741,748
Telegraphers, telephoners, and towermen	25,479	24,818	24,665	3,775,045	3,847,796	3,731,747
Truckers (stations, warehouses, and platforms)	38,878	37,882	36,929	3,603,498	3,521,389	3,504,995
Crossing and bridge flagmen and gatemen	22,485	21,974	22,003	1,695,329	1,695,323	1,703,355
Transportation (yard masters, switch tenders, and hostlers)	24,028	23,318	23,357	4,444,910	4,482,536	4,456,889
Transportation, train and engine	322,830	318,157	317,818	62,464,309	64,388,006	62,918,817
Road conductors	36,751	36,153	36,159	8,452,846	8,807,674	8,619,369
Road brakemen and flagmen	73,777	73,057	72,536	12,444,503	12,842,729	12,559,928
Yard brakemen and yard helpers	53,447	52,620	52,523	8,872,773	9,358,681	9,131,720
Road engineers and motormen	43,639	43,024	42,889	11,322,372	11,359,576	11,079,718
Road firemen and helpers	44,829	44,065	44,018	8,416,119	8,651,282	8,490,326
All occupations	1,816,818	1,776,162	1,804,456	241,574,062	241,428,332	243,277,154

Unemployment of Organized Building-Trades Workers in Massachusetts, July 1, 1927 [1]

THE Massachusetts Department of Labor and Industries in April, 1927, resumed the collection of data relative to unemployment of organized building tradesmen in the State, and the returns are secured from officials of the building trades unions as of the first full working day of each month. Returns for July 1, received from 273 unions representing 47,627 building tradesmen, are presented below, together with comparable data for certain prior reporting dates.

[1] From press release of Massachusetts Department of Labor and Industries—Division of Statistics.

Unemployment by Causes

DATA for four reporting dates specified are presented in Table 1, by principal causes of unemployment.

TABLE 1.—NUMBER AND PER CENT OF UNION MEMBERSHIP REPORTED AS UNEMPLOYED ON DATES SPECIFIED, BY CAUSES OF UNEMPLOYMENT

Classification	Date of report			
	July 1, 1927	June 1, 1927	May 2, 1927	Apr. 1, 1927
Number of unions reporting	273	271	303	273
Membership of unions reporting	47,627	48,947	49,670	47,565
Number of members reported as unemployed:				
Lack of work or materials	7,294	7,631	8,828	11,745
Strike or lockout	140	460	70	66
Sickness, accident, or old age	682	849	890	826
Unfavorable weather	76	161	62	139
Other reasons	----------	3	19	262
Total, all causes	8,192	9,104	9,869	13,038
Percentage unemployed:				
Lack of work or materials	15.3	15.6	17.8	24.7
Strike or lockout	.3	.9	.1	.1
Sickness, accident, or old age	1.4	1.7	1.8	1.7
Unfavorable weather	.2	.3	.1	.3
Other reasons	(1)	(1)	(1)	.6
Total, all causes	17.2	18.4	19.9	27.4

[1] Less than one-tenth of 1 per cent.

For the State as a whole there was a continuous decrease in unemployment of organized building tradesmen (all causes combined) from 27.4 per cent on April 1 to 19.9 per cent on May 2, 18.4 per cent on June 1, and 17.2 per cent on July 1. Unemployment because of lack of work or materials decreased correspondingly from 24.7 per cent on April 1, to 17.8 per cent on May 2, 15.6 per cent on June 1, and 15.3 per cent on July 1. The percentage unemployed on account of sickness, accident, or old age was fairly constant on each of the four reporting dates specified. Those unemployed on account of strike or lockout constituted only 0.3 per cent on July 1, showing a decrease from the rather high percentage of 0.9 on June 1. Unemployment on account of unfavorable weather and other reasons was almost negligible on July 1.

Unemployment in the Principal Occupations

IN Table 2 data are presented showing the extent of unemployment of organized building tradesmen in the principal occupations.

TABLE 2.—NUMBER AND PER CENT OF ORGANIZED BUILDING TRADESMEN UNEMPLOYED JULY 1, 1927, IN THE PRINCIPAL OCCUPATIONS, AND PER CENT UNEMPLOYED APRIL 1, MAY 2, AND JUNE 1, 1927

Occupation	July 1, 1927				Per cent unemployed, all causes		
	Number of unions reporting	Membership	Unemployed, all causes				
			Number	Per cent	June 1, 1927	May 2, 1927	Apr. 1, 1927
Bricklayers, masons, and plasterers	35	5,651	690	12.2	16.6	15.8	30.2
Carpenters	90	19,860	2,681	13.5	15.4	16.8	27.7
Electrical workers	14	2,231	279	12.5	12.5	11.4	16.1
Hod carriers and building laborers	14	6,226	1,725	27.7	28.1	31.7	30.5
Lathers	10	409	43	10.5	13.8	19.4	22.0
Painters, decorators, and paper hangers	46	5,952	1,451	24.4	16.9	17.7	23.7
Plumbers, gasfitters, and steamfitters	34	3,716	793	21.3	27.8	26.9	31.5
Sheet-metal workers	14	978	192	19.6	16.9	11.6	18.3
Other occupations	16	2,604	338	13.0	14.5	19.7	26.5
Total, all occupations	273	47,627	8,192	17.2	18.4	19.9	27.4

On July 1, 1927, the occupations in which the per cent unemployed of organized building tradesmen were high were: Hod carriers and building laborers (27.7 per cent—in part due to a strike of these tradesmen in Worcester); painters, decorators, and paperhangers, 24.4 per cent; plumbers, gasfitters, and steamfitters, 21.3 per cent; and sheet-metal workers, 19.6 per cent.

State Reports on Employment

California

THE July, 1927, Labor Market Bulletin, issued by the Bureau of Labor Statistics of California, shows the following changes in volume of employment and pay roll from June, 1926, to June, 1927, in 757 establishments in that State:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 757 CALIFORNIA ESTABLISHMENTS, JUNE, 1927, COMPARED WITH JUNE, 1926

Industry	Number of establishments reporting	Employees		Weekly pay roll	
		Number in June, 1927	Per cent of change as compared with June, 1926	Amount in June, 1927	Per cent of change as compared with June, 1926
Stone, clay, and glass products:					
Miscellaneous stone and mineral products	13	1,598	+0.3	$53,722	+5.6
Lime, cement, plaster	7	1,915	−7.0	58,831	−8.5
Brick, tile, pottery	20	3,330	+21.8	85,458	+23.1
Glass	9	940	+6.9	30,601	+7.4
Total	49	7,783	+7.1	228,612	+7.3
Metals, machinery, and conveyances:					
Agricultural implements	5	1,324	−17.2	37,538	−15.7
Automobiles, including bodies and parts	14	2,752	−13.9	78,848	−18.4
Brass, bronze, and copper products	9	946	−19.9	25,722	−17.0
Engines, pumps, boilers, and tanks	8	827	−12.1	26,614	−27.7
Iron and steel forgings, bolts, nuts, etc	6	2,351	−11.9	79,586	−13.6
Structural and ornamental steel	17	4,446	+19.7	151,378	+27.1
Ship and boat building and naval repairs	6	5,186	+4.3	169,782	+.6
Tin cans	6	2,286	−3.9	62,148	−5.3
Other iron foundry and machine-shop products	67	6,883	−.7	218,626	−.2
Other sheet-metal products	19	1,538	+1.4	46,464	+2.5
Cars, locomotives, and railway repair shops	18	8,013	+7.0	252,297	+10.4
Total	175	36,552	−.1	1,149,003	+.1

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 757 CALIFORNIA ESTABLISHMENTS, JUNE, 1927, COMPARED WITH JUNE, 1926—Continued

Industry	Number of establishments reporting	Employees		Weekly pay roll	
		Number in June, 1927	Per cent of change as compared with June, 1926	Amount in June, 1927	Per cent of change as compared with June, 1926
Wood manufactures:					
Sawmills and logging	21	11,698	−2.5	$326,198	−7.8
Planing mills, sash and door factories, etc	52	9,535	−3.1	274,283	−4.9
Other wood manufactures	43	4,452	+12.2	127,916	+13.6
Total	116	25,685	−.5	728,397	−3.5
Leather and rubber goods:					
Tanning	7	642	+26.4	18,433	+26.7
Finished leather products	5	450	−11.9	10,480	−2.7
Rubber products	7	2,931	+19.2	88,073	+33.5
Total	19	4,023	+15.7	116,986	+28.1
Chemicals, oils, paints, etc.:					
Explosives	4	504	−5.6	15,814	−3.2
Mineral oil refining	7	6,201	−9.8	230,430	−7.5
Paints, dyes, and colors	6	648	+5.5	16,479	+4.3
Miscellaneous chemical products	13	1,970	+2.6	51,862	+8.9
Total	30	9,323	−6.2	314,585	−4.3
Printing and paper goods:					
Paper boxes, bags, cartons, etc	11	1,606	−1.0	41,924	+1.0
Printing	55	2,343	+8.8	81,896	+6.5
Publishing	15	3,604	+.1	135,995	+2.3
Other paper products	10	1,263	+14.7	30,823	+14.5
Total	91	8,816	+4.0	290,638	+4.4
Textiles:					
Knit goods	13	1,169	+1.7	26,662	+25.7
Other textile products	6	1,591	+1.9	36,179	+8.6
Total	19	2,760	+1.8	62,841	+15.3
Clothing, millinery, and laundering:					
Men's clothing	27	3,032	+7.0	64,850	+2.9
Women's clothing	9	821	−1.4	17,019	+4.6
Millinery	7	608	+43.4	12,195	+56.5
Laundering, cleaning, and dyeing	22	3,564	+5.9	80,907	+3.6
Total	65	8,025	+7.6	174,971	+6.0
Foods, beverages, and tobacco:					
Canning, preserving of fruits and vegetables	34	8,447	−43.4	155,908	−38.6
Canning, packing of fish	6	550	−8.0	5,984	−.8
Confectionery and ice cream	27	1,647	−14.6	42,050	−12.3
Groceries, not elsewhere specified	6	466	−18.8	12,013	−10.0
Bread and bakery products	22	3,626	−1.6	102,270	+2.4
Sugar	6	3,015	+5.9	82,877	+2.3
Slaughtering and meat products	16	2,781	+.4	83,951	+2.3
Cigars and other tobacco products	4	1,039	+2.8	19,053	+2.7
Beverages	3	398	−4.8	10,977	−11.9
Dairy products	11	2,876	+11.7	93,829	+10.5
Flour and grist mills	15	1,067	+1.4	30,938	+.6
Ice manufactures	14	1,147	−12.4	39,590	−7.1
Other food products	13	730	−14.7	16,388	−15.5
Total	177	27,789	−19.6	695,828	−12.2
Water, light, and power	4	3,346	+1.3	97,492	+5.4
Miscellaneous	12	2,054	−2.1	56,952	+12.2
Grand total, all industries	757	136,156	−3.9	3,916,305	−1.3

Illinois

THE following statistics showing the changes in employment and earnings in Illinois factories in May, 1927, as compared with April, 1927, are taken from the June, 1927, issue of the Labor Bulletin, published by the Illinois Department of Labor:

CHANGES IN EMPLOYMENT AND EARNINGS IN ILLINOIS FACTORIES FROM APRIL TO MAY, 1927

Industry	Per cent of change from April to May, 1927			
	Employment			Total earnings
	Males	Females	Total employees	
Stone, clay, and glass products:				
Miscellaneous stone and mineral products	+4.6	+4.9	+4.6	+12.2
Lime, cement, and plaster	+5.1	−44.4	+4.3	+10.2
Brick, tile, and pottery	−.3	−16.4	−.5	−.8
Glass	+.8	+4.5	+1.3	+1.1
Total	+1.2	+1.5	+1.2	+2.3
Metals, machinery, conveyances:				
Iron and steel	+.5	−3.7	+.4	−4.0
Sheet-metal work and hardware	−2.8	+.1	+1.1	−1.1
Tools and cutlery	−7.4	−10.2	−7.7	−3.1
Cooking, heating, ventilating apparatus	−2.9	+8.9	−2.3	−5.0
Brass, copper, zinc, babbitt metal	−2.7	+2.4	−2.6	−10.4
Cars and locomotives	+4.9	.0	+4.8	+2.9
Automobiles and accessories	+2.0	−.4	+1.8	−3.2
Machinery	−.8	−1.1	−1.3	−2.8
Electrical apparatus	+1.7	−.1	−2.2	+.8
Agricultural implements	−3.2	−16.9	−3.3	−3.6
Instruments and appliances	−7.5	−4.7	−5.4	−12.5
Watches, watch cases, clocks, and jewelry	−1.5	−1.8	−1.7	−4.4
Total	−.3	−1.1	−.8	−3.1
Wood products:				
Sawmill and planing-mill products	−16.9	−4.0	−16.6	−24.4
Furniture and cabinet work	−4.2	−5.8	−4.3	−8.7
Pianos, organs, and other musical instruments	−2.0	+1.1	−1.4	−5.0
Miscellaneous wood products	+1.6	−28.9	−2.1	+1.3
Household furnishings	−.8	−4.6	−2.1	+2.7
Total	−5.6	−9.5	−5.7	−9.6
Furs and leather goods:				
Leather	+.6	+6.0	+1.3	−3.8
Furs and fur goods	+13.9	−2.9	+5.6	−5.6
Boots and shoes	+4.4	−3.9	+.2	+12.0
Miscellaneous leather goods	+1.9	+4.2	+3.3	−4.1
Total	+2.6	−1.1	+.7	+6.9
Chemicals, oils, paints, etc.:				
Drugs and chemicals	−.9	−2.5	−1.6	+.4
Paints, dyes, and colors	+4.1	−8.5	−.3	−2.6
Mineral and vegetable oil	−4.1	+.7	−3.6	−3.2
Miscellaneous chemical products	+.9	+7.3	+1.7	−.4
Total	−.3	.0	−.7	−1.6
Printing and paper goods:				
Paper boxes, bags, and tubes	−3.6	−2.2	−3.1	−4.8
Miscellaneous paper goods	−2.8	+.2	−1.6	−3.7
Job printing	−.6	+6.7	+1.2	+.8
Newspapers and periodicals	−1.1	−2.4	−1.1	−1.2
Edition bookbinding	+2.2	−5.8	−.7	+2.2
Total	−1.4	+1.5	−.6	−1.0

CHANGES IN EMPLOYMENT AND EARNINGS IN ILLINOIS FACTORIES FROM APRIL TO MAY, 1927—Continued

Industry	Per cent of change from April to May, 1927			
	Employment			Total earnings
	Males	Females	Total employees	
Textiles:				
Cotton and woolen goods	+2.9	−0.7	+1.3	0.0
Knit goods, cotton and woolen hosiery	+4.4	−.5	+.1	−2.7
Thread and twine	+7.7	−2.3	+9.9	+6.4
Total	+4.4	−1.1	+1.5	−.7
Clothing, millinery, laundering:				
Men's clothing	+2.8	+2.3	+.7	+2.2
Men's shirts and furnishings	.0	+8.5	+4.4	+7.1
Overalls and work clothing	+8.6	+.6	+1.4	−8.2
Men's hats and caps	−8.5	−7.1	−8.0	−28.3
Women's clothing	−4.2	−4.9	−4.8	+.4
Women's underwear	−2.9	−.3	−3.3	+23.0
Women's hats	−26.2	−3.2	−9.4	+.1
Laundering, cleaning, and dyeing	+.7	+.5	+.6	−2.0
Total	+1.2	+.5	−.2	+1.9
Food, beverages, and tobacco:				
Flour, feed and other cereal products	−.5	−5.8	−.9	+1.3
Fruit and vegetable canning and preserving	+15.3	+7.1	+14.0	+20.3
Miscellaneous groceries	+5.6	+7.9	+3.0	−8.1
Slaughtering and meat packing	−.2	−4.5	−.7	+2.3
Dairy products	+2.9	+11.0	+3.4	+12.3
Bread and other bakery products	+.2	−2.3	−.5	+.3
Confectionery	+1.1	−1.8	+4.1	+3.5
Beverages	+.6	−3.4	−1.8	−2.8
Cigars and other tobacco products	−7.5	−7.8	−7.7	−5.8
Manufactured ice	+17.8	----------	+17.8	+16.1
Ice cream	+4.6	−5.4	+3.8	+1.9
Total	+1.0	−2.4	+.6	+2.1
Total, all manufacturing industries	−.3	−.8	−.6	−1.4
Trade—Wholesale and retail:				
Department stores	−5.8	−1.7	−3.2	−10.1
Wholesale dry goods	−.9	−1.2	−1.0	+1.7
Wholesale groceries	+2.2	−5.8	.0	+.1
Mail order houses	−2.5	−2.8	−3.2	−2.4
Total	−2.8	−2.5	−3.0	−3.7
Public utilities:				
Water, light, and power	−3.2	−6.9	−.2	−.2
Telephone	+.5	+.6	+.6	+.9
Street railways	+.6	+.6	+.4	−1.4
Railway car repair shops	−1.2	−4.4	−1.3	−4.8
Total	−.3	+.4	+.1	−.8
Coal mining	−38.0	----------	−38.0	−40.7
Building and contracting:				
Building construction	−2.8	----------	−2.8	+3.2
Road construction	+85.6	----------	+85.6	+94.7
Miscellaneous contracting	+21.3	----------	+21.3	+30.7
Total	+3.0	----------	+3.0	+9.9
Grand total, all industries	−.6	−.6	−.7	−1.3

Iowa

THE July, 1927, issue of the Iowa Employment Survey contains the following statistics showing the changes in number of employees in specified industries in Iowa in July, 1927, as compared with the previous month:

CHANGES IN VOLUME OF EMPLOYMENT IN IOWA, JUNE TO JULY, 1927

Industry	Number of firms reporting	Number of employees on pay rolls, July, 1927	Per cent of change as compared with June, 1927
Food and kindred products:			
Meat packing	7	7,003	+0.5
Cereals	2	1,013	−9.2
Flour	3	141	+22.6
Bakery products	8	819	+2.1
Confectionery	6	313	−20.2
Poultry produce, butter, etc	7	797	−1.7
Sugar, starch, sirup, glucose, etc	3	1,405	−.2
Other food products, coffee, etc	8	308	+8.1
Total	44	11,799	−.9
Textiles:			
Clothing, men's	11	1,131	+2.0
Millinery	2	152	+39.4
Clothing, women's, and woolen goods	3	588	+2.4
Hosiery, awnings, etc	4	710	−.7
Buttons, pearl	7	398	−19.3
Total	27	2,979	−.7
Iron and steel works:			
Foundries and machine shops	27	3,488	−5.0
Brass, bronze products, plumbers' supplies	5	536	0.0
Automobiles, tractors, and engines	6	1,970	−12.7
Furnaces	4	223	−1.3
Pumps	5	392	−3.9
Agricultural implements	9	931	−3.9
Washing machines	8	2,286	−.9
Total	64	9,826	−5.3
Lumber products:			
Millwork, interiors, etc	17	3,392	+3.6
Furniture, desks, etc	9	1,109	+3.5
Refrigerators	3	84	−32.8
Coffins, undertakers' supplies	5	158	0.0
Carriages, wagons, truck bodies	3	97	−8.5
Total	37	4,840	+2.2
Leather products:			
Shoes	2	237	−3.3
Saddlery and harness	3	96	−7.7
Fur goods and tanning	4	105	0.0
Gloves and mittens	3	287	0.0
Total	12	725	−2.2
Paper products, printing and publishing:			
Paper products	4	252	−10.3
Printing and publishing	13	1,856	−9.9
Total	17	2,108	−10.0
Patent medicines, chemicals, and compounds	6	251	−.8
Stone and clay products:			
Cement, plaster, gypsum	8	2,439	−3.1
Brick and tile	12	1,105	+3.9
Marble and granite, crushed rock and stone	3	82	−8.9
Total	23	3,626	−1.3
Tobacco and cigars	4	286	−2.4
Railway car shops	7	8,740	+.2
Various industries:			
Auto tires and tubes	2	156	+7.6
Brooms and brushes	5	159	−10.7
Laundries	5	234	0.0
Mercantile	7	2,610	−2.7
Public service	5	4,024	+.5
Seeds	2	275	−40.9
Wholesale houses	21	1,052	+.9
Commission houses	8	267	+6.0
Other industries	12	948	−26.1
Total	67	9,725	−5.5
Grand total	308	54,905	−2.5

Maryland

THE following employment statistics for specified industries in Maryland were furnished by the commissioner of labor and statistics of that State:

CHANGES IN EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MARYLAND, JUNE TO JULY, 1927

Industry	Establishments reporting for both months	Employment		Pay roll	
		Number of employees, July, 1927	Per cent of change as compared with June, 1927	Amount, July, 1927	Per cent of change as compared with June, 1927
Bakery	4	645	−4.1	$19,245	−0.8
Beverages and soft drinks	3	177	+4.1	4,947	+6.1
Boots and shoes	8	1,142	−13.7	21,091	−14.3
Boxes, paper and fancy	9	555	+7.9	7,115	−4.3
Boxes, wooden	4	188	+7.4	3,192	+1.8
Brass and bronze	3	184	−2.2	3,770	−1.9
Brick, tile, etc	5	754	−1.6	19,348	−3.0
Brushes	5	617	−.5	11,720	−2.6
Car building and repairing	4	381	−1.9	12,136	−7.6
Chemicals	5	1,139	+1.8	31,500	+2.6
Clothing, men's outer garments	5	2,214	+.9	44,179	+3.7
Clothing, women's outer garments	5	749	−9.2	8,694	−1.9
Confectionery	7	642	−18.2	9,887	+1.2
Cotton goods	4	1,557	+1.9	20,735	−6.5
Fertilizer	5	629	+11.1	13,571	−2.6
Food preparation	4	154	+1.9	3,515	−1.9
Foundry	11	1,240	+.4	31,885	−5.7
Furnishing goods, men's	5	975	−7.1	13,113	−7.0
Furniture	10	588	−15.7	15,928	−9.0
Glass manufacture	4	1,003	−13.7	21,545	−14.1
Ice cream	3	185	+1.6	5,477	+3.8
Leather goods	5	665	+.3	13,714	−.7
Lithographing	4	553	+2.2	16,089	−3.6
Lumber and planing	9	660	+.1	18,126	+1.3
Mattresses and spring beds	4	163	−11.5	4,804	−2.3
Plumbers' supplies	4	1,196	−6.8	30,113	−13.4
Printing	9	1,275	−2.4	44,536	−2.2
Rubber tire manufacture	1	2,915	−11.9	143,305	−24.0
Shipbuilding	3	781	+15.8	22,814	+31.9
Shirts	5	695	+.8	9,115	−.1
Stamping and enameling ware	4	1,189	----------	21,794	+5.1
Tinware	4	2,602	+4.6	57,288	+2.7
Tobacco	7	86	−.2	12,647	−1.9
Miscellaneous	19	4,804	+.08	110,989	−6.3

New York

THE following statistics of changes in number of employees and in amount of weekly pay rolls were furnished by the New York State Department of Labor. The figures are based on reports from a fixed list of about 1,600 factories, having in July 470,811 employees, the total of the weekly pay rolls for the middle week of July being $13,631,912.

PER CENT OF CHANGE IN EMPLOYMENT AND IN PAY ROLLS IN NEW YORK STATE FACTORIES IN JULY, 1927, COMPARED WITH JULY, 1926, AND JUNE, 1927

Industry	Per cent of change			
	June, 1927, to July, 1927		July, 1926, to July, 1927	
	Employees	Pay rolls	Employees	Pay rolls
Stone, clay, and glass	−2.2	−0.9	−3.5	−4.3
Miscellaneous stone and minerals	−1.4	+1.3	−6.6	−6.6
Lime, cement, and plaster	−1.6	+1.3	−7.6	−6.0
Cement	+2.0	+4.8	−6.4	−6.2
Brick, tile, and pottery	−5.3	−7.5	−5.2	−9.8
Brick	−4.6	−5.6	−5.5	−10.4
Pottery	−6.9	−12.6	−3.1	−7.7
Glass	+2.1	+3.6	+9.9	+11.7
Metals and machinery	−2.4	−4.1	−6.4	−7.4
Silver and Jewelry	−4.8	−3.3	−8.6	−2.6
Brass, copper, and aluminum	−.9	−4.8	+.6	−1.9
Iron and steel	−7.6	−10.0	−10.0	−15.4
Structural and architectural iron	+1.1	+4.3	+6.0	+10.4
Sheet metal and hardware	+1.1	−2.1	−3.3	−3.4
Hardware	+2.9	+1.3	+14.7	+11.5
Stamped and enameled ware	−1.4	−6.4	+2.2	−1.8
Firearms, tools, and cutlery	−9.2	−11.8	−8.7	−5.2
Cutlery and tools	−15.3	−19.3	−7.8	−5.2
Cooking, heating, and ventilating apparatus	+2.0	−2.8	−8.1	−8.5
Steam and hot-water heating	+1.8	−3.7	−8.3	−9.4
Stoves	−3.0	−7.6	+14.6	+23.0
Machinery, including electrical apparatus	−1.0	−1.0	−7.3	−6.6
Agricultural implements	+.9	−6.2	+1.8	−3.9
Electrical machinery and apparatus	−.9	+1.6	−6.4	−3.3
Foundries and machine shops	−1.3	−3.4	−11.7	−12.9
Automobiles, carriages, and airplanes	−10.2	−15.3	−13.0	−19.1
Automobiles and parts	−10.7	−16.0	−13.9	−20.6
Railroad equipment and repair	+.9	−3.1	−10.2	−9.2
Locomotives and equipment	+10.4	+9.8	−17.7	−19.7
Railway repair shops	−3.8	−9.0	−5.3	−2.1
Boat and ship building	+.6	+8.2	−4.4	−12.2
Instruments and appliances	−4.2	−3.9	+3.6	+3.2
Wood manufactures	−3.0	−2.1	−6.6	−7.0
Saw and planing mills	−3.3	−3.4	−7.6	−7.6
Millwork	−1.4	−2.3	−6.4	−6.5
Sawmills	−8.0	−6.9	−1.6	−2.9
Furniture and cabinet work	+.1	−.7	−2.9	−5.0
Furniture	−.1	−1.9	−1.9	−2.9
Pianos and other musical instruments	−7.1	−3.8	−13.6	−12.9
Miscellaneous wood, etc	−3.6	−1.3	−3.7	−2.6
Furs, leather, and rubber goods	+1.4	+2.5	+1.0	+2.9
Leather	+.2	+1.7	−11.1	−16.0
Furs and fur goods	+.2	+13.0	+1.2	+10.2
Shoes	+2.6	+3.0	+3.0	+4.1
Other leather and canvas goods	+.7	+2.3	+.6	+8.9
Rubber and gutta-percha	+1.5	−2.2	+8.4	+2.0
Pearl, horn, bone, etc	−7.0	−7.0	−12.9	−10.6
Chemicals, oils, paints, etc	+.3	−2.8	+6.2	+8.3
Drugs and chemicals	+1.4	−4.9	+8.6	+12.0
Paints and colors	−2.0	−2.8	+1.6	+3.0
Oil products	−.2	−.7	+4.4	+7.9
Petroleum refining	+4.2	+3.7	(1)	+1.0
Miscellaneous chemicals	+.7	−3.6	+7.7	+7.5
Paper	−.6	−.4	−11.6	−11.3
Printing and paper goods	−2.3	−2.3	−3.3	−.2
Paper boxes and tubes	−6.1	−7.9	−8.2	−13.9
Miscellaneous paper goods	+4.3	+8.5	−2.4	+.7
Printing and bookmaking	−3.1	−3.3	−2.7	+.9
Printing, newspapers	−.9	−1.6	+3.9	+6.9
Printing, book and job	−4.4	−4.3	−5.6	−1.9
Textiles	−5.5	−7.0	+4.5	+5.6
Silk and silk goods	−23.2	−23.2	−4.0	+1.4
Wool manufactures	−3.4	−7.9	+2.4	+.3
Carpets and rugs	−2.5	−8.9	+7.3	+4.4
Woolens and worsteds	−8.5	−5.8	−16.9	−13.2
Cotton goods	−.6	+1.7	+5.1	+6.9
Knit goods, except silk	−2.2	−3.4	+14.0	+20.3
Other textiles	−4.0	−3.8	+1.6	+3.2
Dyeing and finishing	+.6	−.5	+2.8	+4.7
Clothing and millinery	−1.7	+1.0	−.5	+4.8
Men's clothing	+2.7	+2.9	−2.1	−1.4
Men's furnishings	−1.8	+2.1	−9.6	−1.8
Shirts and collars	−1.1	+1.8	−11.0	−.9

[1] No change.

PER CENT OF CHANGE IN EMPLOYMENT AND IN PAY ROLLS IN NEW YORK STATE FACTORIES IN JULY, 1927, COMPARED WITH JULY, 1926, AND JUNE, 1927—Continued

Industry	Per cent of change			
	June, 1927, to July, 1927		July, 1926, to July, 1927	
	Employees	Pay rolls	Employees	Pay rolls
Clothing and millinery—Continued.				
Women's clothing	−3.1	+10.0	+24.4	+39.0
Women's underwear	−7.7	−12.3	−15.0	−17.3
Women's headwear	−18.9	−23.1	+11.4	+6.6
Miscellaneous sewing	−4.9	−6.8	−12.3	−13.7
Laundering and cleaning	−.2	+.2	+5.3	+6.4
Food and tobacco	+2.5	+.4	−4.1	−2.9
Flour, feed, and cereals	+1.4	−2.7	−4.0	−2.0
Flour	+3.3	+3.2	−7.4	−5.7
Canning and preserving	+58.2	+33.9	−25.2	−28.6
Other groceries	+1.7	−.9	+3.4	−1.0
Sugar refining	+4.7	−1.2	+9.0	+1.4
Meat and dairy products	+2.2	+3.1	+.9	+1.3
Meat packing	+3.4	+5.5	+1.4	+1.4
Bakery products	−3.6	−3.5	−.8	−.2
Candy	+.8	(1)	−12.8	−8.8
Beverages	+13.5	+9.4	−7.4	−3.6
Tobacco	+1.6	−1.4	−3.4	+.6
Water, light, and power	+.4	−2.5	+.8	+.3
Total	−1.7	−2.4	−2.9	−2.4

[1] Change of less than one-half of 1 per cent.

Pennsylvania

THE following statistics on changes in employment, in weekly man-hours, and in pay-roll totals, from June to July, 1927, were furnished by the Bureau of Statistics of the Department of Labor and Industry of Pennsylvania:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES, IN TOTAL WEEKLY MAN-HOURS, AND IN WEEKLY PAY ROLL IN 489 PENNSYLVANIA ESTABLISHMENTS BETWEEN JUNE AND JULY, 1927

Industry	Number of plants reporting	Wage earners, week ending July 15, 1927		Total weekly man-hours, week ending July 15, 1927		Total weekly pay roll: Per cent change as compared with June, 1927
		Number	Per cent change as compared with June, 1927	Number	Per cent change as compared with June, 1927	
Metal manufactures:						
Automobiles, bodies, and parts	16	9,817	−5.2	471,861	−3.1	−3.9
Car construction and repair	12	7,597	+4.6	323,297	+4.0	+5.0
Electrical machinery and apparatus	15	5,107	+8.9	227,653	+1.2	+1.0
Engines, machines, and machine tools	31	9,262	−2.6	440,169	−4.8	−5.4
Foundries and machine shops	44	7,833	−1.8	350,701	−5.8	−5.9
Heating appliances and apparatus	6	1,768	+1.4	73,154	−10.1	−6.7
Iron and steel blast furnaces	9	8,104	−1.9	365,761	−11.6	−12.1
Iron and steel forgings	6	1,449	+.3	55,099	−12.9	−17.9
Steel works and rolling mills	22	32,739	−2.5	1,371,523	−10.6	−10.1
Structural iron works	11	1,872	−.1	89,219	−2.7	−2.6
Miscellaneous iron and steel products	17	10,466	−2.9	472,274	−9.3	−10.0
Shipbuilding	3	4,143	−11.9	173,278	−18.2	−18.8
Hardware	6	1,020	−13.3	42,347	−24.0	−24.3
Nonferrous metals	7	769	+.7	36,476	−2.0	−3.8
Total	205	101,946	−2.1	4,492,812	−7.7	−7.9

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES, IN TOTAL WEEKLY MAN-HOURS, AND IN WEEKLY PAY ROLL IN 489 PENNSYLVANIA ESTABLISHMENTS BETWEEN JUNE AND JULY, 1927—Continued

Industry	Number of plants reporting	Wage earners, week ending July 15, 1927		Total weekly man-hours, week ending July 15, 1927		Total weekly pay roll: Per cent change as compared with June, 1927
		Number	Per cent change as compared with June, 1927	Number	Per cent change as compared with June, 1927	
Textile products:						
Carpets and rugs	6	1,976	−1.1	96,910	−1.7	−4.2
Clothing	9	591	+5.3	26,995	+6.6	+10.6
Cotton goods	11	1,280	+7.4	63,087	+9.1	+4.6
Silk goods	21	8,311	−2.1	334,068	−3.6	−3.7
Woolens and worsteds	8	2,228	+3.0	100,085	+4.5	+3.2
Knit goods and hosiery	11	5,215	−1.8	187,895	−2.5	−3.6
Dyeing and finishing textiles	5	685	+3.8	30,690	+5.5	+10.9
Total	71	20,286	−.4	839,730	−.7	−1.7
Foods and tobacco:						
Bakeries	17	1,495	−.5	77,013	−1.9	−2.7
Confectionery and ice cream	10	2,625	−2.5	136,304	−12.0	−11.7
Slaughtering and meat packing	9	1,259	+.8	63,383	−1.1	−2.3
Cigars and tobacco	7	313	+1.6	12,328	−5.6	+.3
Total	43	5,692	−1.0	289,028	−7.0	−6.8
Building materials:						
Brick, tile, and terra cotta products	14	2,545	−2.3	115,772	−2.8	−6.6
Cement	7	4,068	+.4	240,186	−3.0	−7.2
Glass	13	4,351	−6.7	168,648	−13.3	−12.0
Total	34	10,964	−3.2	524,606	−6.5	−8.9
Construction and contracting:						
Buildings	16	863	−10.5	36,365	−7.1	−11.1
Street and highway	3	1,806	−2.6	93,626	+5.8	+5.3
General	10	2,650	+4.0	124,616	+.9	+.2
Total	29	5,319	−.9	254,607	+1.4	−.6
Chemicals and allied products:						
Chemicals and drugs	11	806	−.1	45,623	−1.4	−2.6
Paints and varnishes	5	262	+2.3	12,811	−2.7	−2.3
Total	16	1,068	+.5	58,434	−1.7	−2.5
Miscellaneous industries:						
Lumber and planing mill products	17	831	−.4	38,965	+.7	+.3
Furniture	15	1,483	−.7	71,314	+.6	+1.5
Leather tanning	9	2,074	−.3	104,890	+1.7	+2.7
Leather products	5	129	0	5,996	−1.2	−1.5
Boots and shoes	9	1,512	+18.6	66,604	+25.1	+21.5
Paper and pulp products	10	2,673	+1.4	137,097	−3.5	−3.4
Printing and publishing	23	1,387	−4.7	62,855	−.9	−1.5
Rubber tires and goods	3	853	−5.3	41,345	−8.3	−10.2
Total	91	10,942	+1.3	529,066	+1.2	+.1
All industries	489	156,217	−1.6	6,988,283	−5.8	−6.5

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from monthly reports of actual selling prices [1] received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food July 15, 1926, and June 15 and July 15, 1927, as well as the percentage changes in the year and in the month. For example, the retail price per pound of onions was 6.8 cents on July, 1926; 8.8 cents on June, 1927, and 7.8 cents on July, 1927. These figures show an increase of 15 per cent in the year and a decrease of 11 per cent in the month.

The cost of the various articles of food combined shows a decrease of 2.3 per cent July 15, 1927, as compared with July 15, 1926, and a decrease of 3.2 per cent July 15, 1927, as compared with June 15, 1927.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE JULY 15, 1927, COMPARED WITH JUNE 15, 1927, AND JULY 15, 1926

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) July 15, 1927, compared with—	
		July 15, 1926	June 15, 1927	July 15, 1927	July 15, 1926	June 15, 1927
		Cents	*Cents*	*Cents*		
Sirloin steak	Pound	42.0	42.4	43.6	+4	+3
Round steak	do	36.3	37.0	38.0	+5	+3
Rib roast	do	30.7	31.1	31.7	+3	+2
Chuck roast	do	22.7	23.5	23.9	+5	+2
Plate beef	do	14.5	15.2	15.3	+6	+1
Pork chops	do	41.7	34.7	34.9	−16	+1
Bacon	do	52.3	47.1	46.6	−11	−1
Ham	do	60.9	55.5	54.6	−10	−2
Lamb, leg of	do	40.3	41.0	40.3	0	−2
Hens	do	39.2	36.3	35.6	−9	−2
Salmon, canned, red	do	38.1	32.3	32.3	−15	0
Milk, fresh	Quart	13.8	13.9	14.0	+1	+1
Milk, evaporated	15-16 oz. can	11.4	11.5	11.5	+1	0
Butter	Pound	50.1	51.8	51.5	+3	−1
Oleomargarine (all butter substitutes)	do	30.2	28.2	28.0	−7	−1
Cheese	do	35.6	37.0	36.9	+4	−0.3
Lard	do	22.9	18.8	18.8	−18	0
Vegetable lard substitute	do	25.9	25.1	25.0	−3	−0.4
Eggs, strictly fresh	Dozen	42.1	33.5	36.9	−12	+10
Bread	Pound	9.4	9.3	9.3	−1	0

[1] In addition to monthly retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE JULY 15, 1927, COMPARED WITH JUNE 15, 1927, AND JULY 15, 1926—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (−) July 15, 1927, compared with—	
		July 15, 1926	June 15, 1927	July 15, 1927	July 15, 1926	July 15, 1927
		Cents	*Cents*	*Cents*		
Flour	Pound	6.0	5.5	5.5	−8	0
Corn meal	do	5.1	5.2	5.2	+2	0
Rolled oats	do	9.1	9.0	9.0	−1	0
Corn flakes	8-oz. pkg.	10.9	10.0	9.8	−10	−2
Wheat cereal	28-oz. pkg.	25.4	25.4	25.4	0	0
Macaroni	Pound	20.2	20.0	20.0	−1	0
Rice	do	11.7	10.7	10.7	−9	0
Beans, navy	do	9.2	9.3	9.4	+2	+1
Potatoes	do	4.1	6.0	4.2	+2	−30
Onions	do	6.8	8.8	7.8	+15	−11
Cabbage	do	5.1	9.6	5.5	+8	−43
Beans, baked	No. 2 can	11.9	11.5	11.5	−3	0
Corn, canned	do	16.4	15.6	15.5	−5	−1
Peas, canned	do	17.4	16.7	16.7	−4	0
Tomatoes, canned	do	11.8	12.0	12.0	+2	0
Sugar	Pound	6.9	7.3	7.4	+7	+1
Tea	do	77.0	77.3	77.5	+1	+0.3
Coffee	do	51.1	47.9	47.6	−7	−1
Prunes	do	17.2	15.6	15.7	−9	+1
Raisins	do	14.8	14.3	14.4	−3	+1
Bananas	Dozen	35.2	33.5	33.4	−5	−0.3
Oranges	do	49.6	49.3	50.2	+1	+2
Weighted food index					−2.3	−3.2

Table 2 shows for the United States average retail prices of specified food articles on July 15, 1913, and on July 15 of each year from 1921 to 1927, together with percentage changes in July of each of these specified years, compared with July, 1913. For example, the retail price per pound of bread was 5.6 cents in July, 1913; 9.7 cents in July, 1921; 8.8 cents in July, 1922 and 1923; 8.7 cents in July, 1924; 9.4 cents in July, 1925 and 1926, and 9.3 cents in July, 1927.

As compared with July, 1913, these figures show increases of 73 per cent in July, 1921; 57 per cent in July, 1922 and 1923; 55 per cent in July, 1924; 68 per cent in July, 1925 and 1926, and 66 per cent in July, 1927.

The cost of the various articles of food combined showed an increase of 54 per cent in July, 1927, as compared with July, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE JULY 15, 1927, OF CERTAIN SPECIFIED YEARS COMPARED WITH JULY 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on July 15—								Per cent of increase July 15 of each specified year compared with July 15, 1913						
		1913	1921	1922	1923	1924	1925	1926	1927	1921	1922	1923	1924	1925	1926	1927
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.							
Sirloin steak	Pound	26.4	40.2	39.2	41.0	40.7	42.2	42.0	43.6	52	48	55	54	60	59	65
Round steak	do	23.2	35.8	34.2	35.5	34.6	36.5	36.3	38.0	54	47	53	49	57	56	64
Rib roast	do	20.2	29.3	28.5	29.3	29.1	30.4	30.7	31.7	45	41	45	44	50	52	57
Chuck roast	do	16.4	20.7	20.3	20.8	21.0	22.4	22.7	23.9	26	24	27	28	37	38	46
Plate beef	do	12.2	13.2	12.8	12.8	13.1	14.0	14.5	15.3	8	5	5	7	15	19	25
Pork chops	do	21.7	34.3	34.4	31.2	30.3	39.2	41.7	34.9	58	59	44	40	81	92	61
Bacon	do	28.0	43.2	40.6	39.1	36.4	48.7	52.3	46.6	54	45	40	30	74	87	66
Ham	do	28.1	51.0	52.3	46.0	44.7	54.4	60.9	54.6	81	86	64	59	94	117	94
Lamb, leg of	do	19.7	35.2	37.4	38.5	38.4	39.3	40.3	40.3	79	90	95	95	99	105	105
Hens	do	21.7	38.8	35.7	34.8	35.3	36.6	39.2	35.6	79	65	60	63	69	81	64
Salmon, canned, red	do	----	36.8	32.1	31.1	31.2	31.5	38.1	32.3	----	----	----	----	----	----	----
Milk, fresh	Quart	8.8	14.0	12.8	13.6	13.5	13.8	13.8	14.0	59	45	55	53	57	57	59
Milk, evaporated	[1]	----	13.5	10.9	12.2	11.2	11.4	11.4	11.5	----	----	----	----	----	----	----
Butter	Pound	34.8	46.6	45.7	49.1	49.5	53.2	50.1	51.5	34	31	41	42	53	44	48
Oleomargarine (all butter substitutes)	do	----	27.9	27.0	28.2	29.2	29.9	30.2	28.0	----	----	----	----	----	----	----
Cheese	do	21.9	29.5	31.5	36.2	34.4	36.6	35.6	36.9	35	44	65	57	67	63	68
Lard	do	15.9	16.7	17.2	17.1	17.1	23.5	22.9	18.8	5	8	8	8	48	44	18
Vegetable lard substitute	do	----	21.0	22.7	22.8	24.7	25.8	25.9	25.0	----	----	----	----	----	----	----
Eggs, strictly fresh	Dozen	29.9	42.3	36.0	37.1	39.4	46.2	42.1	36.9	41	20	24	32	55	41	23
Bread	Pound	5.6	9.7	8.8	8.8	8.7	9.4	9.4	9.3	73	57	57	55	68	68	66
Flour	do	3.3	5.8	5.2	4.7	4.8	6.1	6.0	5.5	76	58	42	45	85	82	67
Corn meal	do	3.0	4.4	3.9	4.1	4.5	5.4	5.1	5.2	47	30	37	50	80	70	73
Rolled oats	do	----	9.9	8.7	8.8	8.8	9.2	9.1	9.0	----	----	----	----	----	----	----
Corn flakes	[2]	----	12.2	9.8	9.7	9.6	11.1	10.9	9.8	----	----	----	----	----	----	----
Wheat cereal	[3]	----	29.7	25.8	24.4	24.3	24.6	25.4	25.4	----	----	----	----	----	----	----
Macaroni	Pound	----	20.6	20.0	19.8	19.6	20.5	20.2	20.0	----	----	----	----	----	----	----
Rice	do	8.7	8.7	9.6	9.4	10.0	11.2	11.7	10.7	0	10	8	15	29	34	23
Beans, navy	do	----	7.9	11.1	11.3	9.7	10.3	9.2	9.4	----	----	----	----	----	----	----
Potatoes	do	1.9	3.4	3.6	4.2	3.3	4.4	4.1	4.2	79	89	121	74	132	116	121
Onions	do	----	5.4	7.0	7.4	6.9	9.5	6.8	7.8	----	----	----	----	----	----	----
Cabbage	do	----	5.5	4.6	5.4	5.0	6.5	5.1	5.5	----	----	----	----	----	----	----
Beans, baked	[4]	----	14.2	13.3	12.9	12.6	12.4	11.9	11.5	----	----	----	----	----	----	----
Corn, canned	[4]	----	15.8	15.4	15.4	15.8	18.3	16.4	15.5	----	----	----	----	----	----	----
Peas, canned	[4]	----	17.5	17.8	17.6	18.1	18.4	17.4	16.7	----	----	----	----	----	----	----
Tomatoes, canned	[4]	----	11.4	13.8	13.0	13.2	13.7	11.8	12.0	----	----	----	----	----	----	----
Sugar, granulated	Pound	5.5	7.1	7.6	10.5	8.4	7.1	6.9	7.4	29	38	91	53	29	25	35
Tea	do	54.4	69.2	68.0	69.4	70.8	75.8	77.0	77.5	27	25	28	30	39	42	42
Coffee	do	29.8	35.6	36.2	37.7	42.4	50.8	51.1	47.6	19	21	27	42	70	71	60
Prunes	do	----	18.6	20.8	19.2	17.4	17.3	17.2	15.7	----	----	----	----	----	----	----
Raisins	do	----	30.7	24.0	17.5	15.4	14.5	14.8	14.4	----	----	----	----	----	----	----
Bananas	Dozen	----	40.8	35.8	38.8	35.9	36.2	35.2	33.4	----	----	----	----	----	----	----
Oranges	do	----	51.4	63.2	53.1	45.4	61.2	49.6	50.2	----	----	----	----	----	----	----
Weighted food index[5]	----	----	----	----	----	----	----	----	----	49.0	42.7	47.8	43.9	60.5	57.7	54.0

[1] 15-16-ounce can.
[2] 8-ounce package.
[3] 28-ounce package.
[4] No. 2 can.
[5] Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chop, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the changes in the retail prices of each of 22 articles of food for which prices have been secured since 1913, as well as the changes in the amounts of these articles that could be purchased for $1 in specified years, 1913 to 1926, and in June and July, 1927.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR $1 IN EACH YEAR, 1913 TO 1926, AND IN JUNE AND JULY, 1927

Year	Sirloin steak		Round steak		Rib roast		Chuck roast		Plate beef		Pork chops	
	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1	Average retail price	Amt. for $1
	Cents per lb.	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*
1913	25.4	3.9	22.3	4.5	19.8	5.1	16.0	6.3	12.1	8.3	21.0	4.8
1920	43.7	2.3	39.5	2.5	33.2	3.0	26.2	3.8	18.3	5.5	42.3	2.4
1921	38.8	2.6	34.4	2.9	29.1	3.4	21.2	4.7	14.3	7.0	34.9	2.9
1922	37.4	2.7	32.3	3.1	27.6	3.6	19.7	5.1	12.8	7.8	33.0	3.0
1923	39.1	2.6	33.5	3.0	28.4	3.5	20.2	5.0	12.9	7.8	30.4	3.3
1924	39.6	2.5	33.8	3.0	28.8	3.5	20.8	4.8	13.2	7.6	30.8	3.2
1925	40.6	2.5	34.7	2.9	29.6	3.4	21.6	4.6	13.8	7.2	36.6	2.7
1926	41.3	2.4	35.6	2.8	30.3	3.3	22.5	4.4	14.6	6.8	39.5	2.5
1927:												
June	42.4	2.4	37.0	2.7	31.1	3.2	23.5	4.3	15.2	6.6	34.7	2.9
July	43.6	2.3	38.0	2.6	31.7	3.2	23.9	4.2	15.3	6.5	34.9	2.9

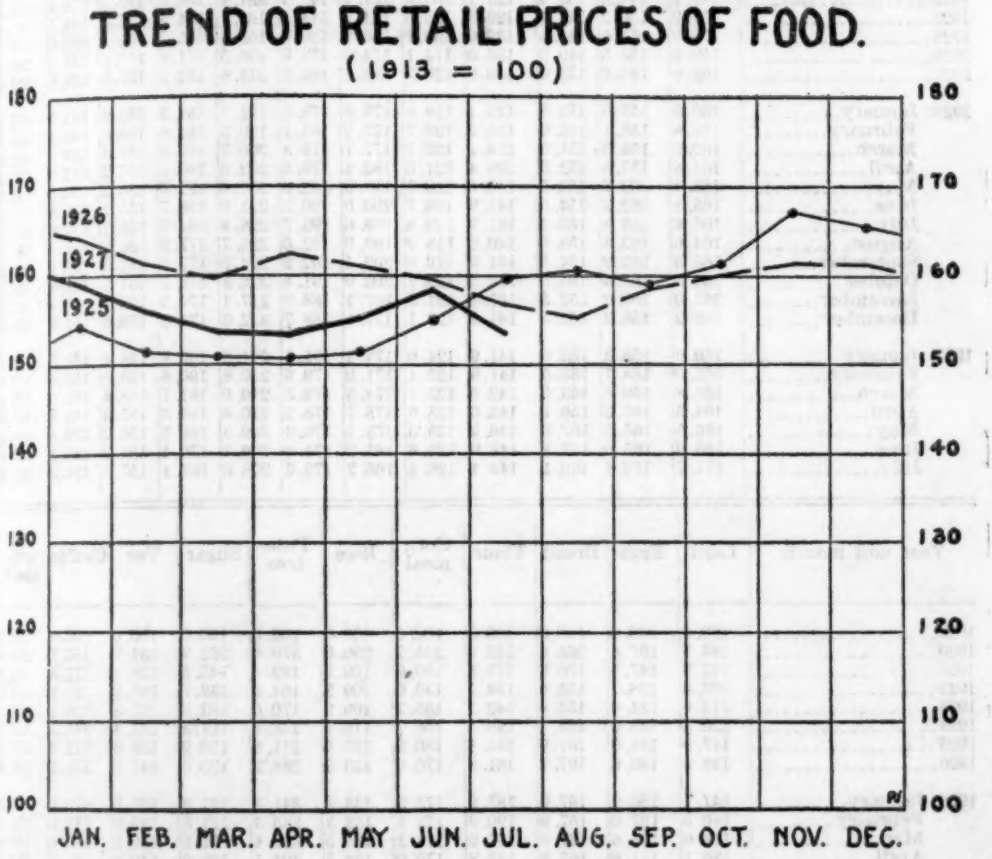
Year	Bacon		Ham		Hens		Milk		Butter		Cheese	
	Cents per lb.	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per qt.*	*Qts.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*
1913	27.0	3.7	26.9	3.7	21.3	4.7	8.9	11.2	38.3	2.6	22.1	4.5
1920	52.3	1.9	55.5	1.8	44.7	2.2	16.7	6.0	70.1	1.4	41.6	2.4
1921	42.7	2.3	48.8	2.0	39.7	2.5	14.6	6.8	51.7	1.9	34.0	2.9
1922	39.8	2.5	48.8	2.0	36.0	2.8	13.1	7.6	47.9	2.1	32.9	3.0
1923	39.1	2.6	45.5	2.2	35.0	2.9	13.8	7.2	55.4	1.8	36.9	2.7
1924	37.7	2.7	45.3	2.2	35.3	2.8	13.8	7.2	51.7	1.9	35.3	2.8
1925	46.7	2.1	52.6	1.9	36.6	2.7	14.0	7.1	54.8	1.8	36.7	2.7
1926	50.3	2.0	57.4	1.7	38.8	2.6	14.0	7.1	53.1	1.9	36.6	2.7
1927:												
June	47.1	2.1	55.5	1.8	36.3	2.8	13.9	7.2	51.8	1.9	37.0	2.7
July	46.6	2.1	54.6	1.8	35.6	2.8	14.0	7.1	51.5	1.9	36.9	2.7

Year	Lard		Eggs		Bread		Flour		Corn meal		Rice	
	Cents per lb.	*Lbs.*	*Cents per doz.*	*Dozs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*
1913	15.8	6.3	34.5	2.9	5.6	17.9	3.3	30.3	3.0	33.3	8.7	11.5
1920	29.5	3.4	68.1	1.5	11.5	8.7	8.1	12.3	6.5	15.4	17.4	5.7
1921	18.0	5.6	50.9	2.0	9.9	10.1	5.8	17.2	4.5	22.2	9.5	10.5
1922	17.0	5.9	44.4	2.3	8.7	11.5	5.1	19.6	3.9	25.6	9.5	10.5
1923	17.7	5.6	46.5	2.2	8.7	11.5	4.7	21.3	4.1	24.4	9.5	10.5
1924	19.0	5.3	47.8	2.1	8.8	11.4	4.9	20.4	4.7	21.3	10.1	9.9
1925	23.3	4.3	52.1	1.9	9.4	10.6	6.1	16.4	5.4	18.5	11.1	9.0
1926	21.9	4.6	48.5	2.1	9.4	10.6	6.0	16.7	5.1	19.6	11.6	8.6
1927:												
June	18.8	5.3	33.5	3.0	9.3	10.8	5.5	18.2	5.2	19.2	10.7	9.3
July	18.8	5.3	36.9	2.7	9.3	10.8	5.5	18.2	5.2	19.2	10.7	9.3

Year	Potatoes		Sugar		Tea		Coffee	
	Cents per lb.	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*	*Cents per lb.*	*Lbs.*
1913	1.7	58.8	5.5	18.2	54.4	1.8	29.8	3.4
1920	6.3	15.9	19.4	5.2	73.3	1.4	47.0	2.1
1921	3.1	32.3	8.0	12.5	69.7	1.4	36.3	2.8
1922	2.8	35.7	7.3	13.7	68.1	1.5	36.1	2.8
1923	2.9	34.5	10.1	9.9	69.5	1.4	37.7	2.7
1924	2.7	37.0	9.2	10.9	71.5	1.4	43.3	2.3
1925	3.6	27.8	7.2	13.9	75.5	1.3	51.5	1.9
1926	4.9	20.4	6.9	14.5	76.7	1.3	51.0	2.0
1927:								
June	6.0	16.7	7.3	13.7	77.3	1.3	47.9	2.1
July	4.2	23.8	7.4	13.5	77.5	1.3	47.6	2.1

Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1926,[2] and by months for 1926, and for January through July, 1927. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average



price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1926 was 162.6, which means that the average money price for the year 1926 was 62.6 per cent higher than the average money price for the year 1913. As compared with the relative price, 159.8 in 1925, the figures for 1926 show an increase of nearly three points, but an increase of 1.75 per cent in the year.

[2] For index numbers of each month, January, 1913, to December, 1925, see Bulletin No. 396, pp. 44 to 61, and Bulletin No. 418, pp. 38 to 51.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913 AND 1920 TO 1926, AND BY MONTHS FOR 1926, AND JANUARY THROUGH JULY, 1927

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1926: January	160.6	157.0	151.5	138.1	119.8	173.8	178.5	198.1	181.2	159.6	144.6	170.1
February	159.8	156.1	148.0	138.1	120.7	172.9	181.1	199.3	182.6	159.6	142.3	169.7
March	160.2	156.5	151.0	138.1	120.7	177.1	179.3	200.7	185.0	157.3	139.9	168.3
April	161.8	157.8	152.5	139.4	121.5	182.4	179.6	202.6	190.1	156.2	132.9	165.2
May	163.4	160.5	153.5	140.6	120.7	191.9	182.6	207.8	192.5	156.2	130.5	162.9
June	165.4	162.3	154.5	141.9	120.7	200.0	190.7	221.9	188.7	155.1	131.3	161.5
July	165.4	162.8	155.1	141.9	119.8	198.6	193.7	226.4	184.0	155.1	130.8	161.1
August	164.6	162.3	153.5	140.6	118.2	192.9	192.6	225.7	177.9	156.2	132.1	161.5
September	165.0	163.2	154.5	141.9	119.8	202.4	192.2	224.5	177.5	157.3	137.1	163.3
October	163.4	161.4	154.5	142.5	120.7	202.9	191.5	222.3	176.5	157.3	141.8	166.1
November	161.0	159.2	152.5	141.9	121.5	187.1	188.9	217.1	174.2	158.4	145.4	167.0
December	160.2	158.3	152.5	141.9	123.1	177.1	183.7	212.3	174.6	159.6	154.8	169.2
1927: January	160.6	158.3	153.0	141.9	124.0	174.3	181.1	211.2	180.8	158.4	152.5	170.1
February	161.0	158.7	153.5	141.9	123.1	171.0	179.6	210.8	180.8	158.4	153.5	170.1
March	161.8	159.6	153.5	142.5	123.1	174.3	179.3	210.0	181.7	158.4	154.6	168.8
April	164.6	163.2	156.1	145.6	125.6	175.7	178.2	210.8	182.6	157.3	152.5	167.9
May	166.5	165.5	157.6	146.9	125.6	173.3	176.3	209.3	180.3	156.2	139.4	167.4
June	166.9	165.9	157.1	146.9	125.6	165.2	174.4	206.3	170.4	156.2	135.2	167.4
July	171.7	170.4	160.1	149.4	126.4	166.2	172.6	203.0	167.1	157.3	134.5	167.0

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles[1]
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923	112.0	134.8	155.4	142.1	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1926: January	141.1	156.2	167.9	187.9	173.3	133.3	341.2	121.8	139.9	172.1	164.3
February	140.5	127.0	167.9	190.9	173.3	133.3	335.3	121.8	139.9	172.1	161.5
March	138.6	111.6	167.9	187.9	173.3	134.5	329.4	121.8	139.9	172.1	159.9
April	136.1	111.9	167.9	184.8	170.0	134.5	394.1	120.0	140.3	171.5	162.4
May	136.1	112.8	167.9	184.8	170.0	134.5	352.9	121.8	140.4	171.1	161.1
June	143.0	118.0	167.9	184.8	170.0	134.5	294.1	125.5	141.4	171.1	159.7
July	144.9	122.0	167.9	181.8	170.0	134.5	241.2	125.5	141.5	171.5	157.0
August	143.7	130.1	167.9	181.8	170.0	133.3	211.8	127.3	141.7	171.1	155.7
September	141.1	149.3	167.9	175.8	170.0	134.5	229.4	127.3	141.5	171.1	158.5
October	138.6	168.7	167.9	172.7	170.0	133.3	223.5	129.1	142.1	170.8	160.0
November	133.5	191.3	167.9	172.7	170.0	129.9	235.3	129.1	141.7	170.5	161.6
December	129.1	189.0	167.9	169.7	170.0	128.7	235.3	132.7	141.4	170.1	161.8
1927: January	126.6	162.0	167.9	169.7	170.0	126.4	235.3	136.4	142.5	168.5	159.3
February	124.1	128.1	167.9	169.7	170.0	124.1	223.5	136.4	142.3	167.4	156.0
March	122.8	102.6	167.9	166.7	170.0	124.1	217.6	134.5	142.6	165.4	153.8
April	120.9	98.3	167.9	166.7	170.0	123.0	217.6	132.7	142.6	163.8	153.6
May	120.3	97.4	167.9	166.7	170.0	121.8	264.7	132.7	142.3	161.7	155.4
June	119.0	97.1	166.1	166.7	173.3	123.0	352.9	132.7	142.1	160.7	158.5
July	119.0	107.0	166.1	166.7	173.3	123.0	247.1	134.5	142.5	159.7	153.4

[1] 30 articles in 1907; 15 articles in 1908–1912; 22 articles in 1913–1920; 43 articles in 1921–1927.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100 are 158.5 for June, 1927, and 153.4 for July, 1927.

Retail Prices of Food in

AVERAGE retail food prices are shown in Table 5 for 40 cities. For 11 other cities prices are shown for the same dates, with by the bureau until after 1913.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

[Exact comparisons of prices in different cities can not be made for some articles,

Article	Unit	Atlanta, Ga.				Baltimore, Md.				Birmingham, Ala.			
		July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
		1913	1926			1913	1926			1913	1926		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	26.0	40.0	42.2	42.4	24.3	40.4	41.0	41.5	28.1	41.0	41.6	42.4
Round steak	do	21.5	35.8	37.8	37.8	23.0	36.6	37.2	37.5	22.5	35.7	35.6	36.7
Rib roast	do	19.1	31.9	32.2	33.0	20.0	30.7	30.9	31.5	20.6	28.8	29.9	29.9
Chuck roast	do	15.9	23.8	24.6	24.6	16.7	22.1	23.1	23.5	16.8	22.8	24.4	23.9
Plate beef	do	9.4	13.9	15.2	15.2	12.8	14.9	15.6	15.5	10.5	14.5	15.0	15.5
Pork chops	do	24.5	39.2	34.5	33.4	20.0	40.5	34.1	33.8	20.0	40.0	32.9	33.7
Bacon, sliced	do	32.0	49.2	44.3	44.9	26.0	46.9	42.1	43.0	35.0	51.0	47.3	47.1
Ham, sliced	do	31.0	61.7	56.8	55.7	34.5	62.6	56.9	57.7	31.3	58.9	54.7	55.0
Lamb, leg of	do	20.0	38.6	40.6	40.9	19.0	41.3	41.5	39.9	23.3	38.6	40.4	42.1
Hens	do	20.1	37.6	34.1	33.7	21.8	41.9	37.3	37.3	17.3	36.3	33.4	33.5
Salmon, canned, red	do	-----	38.7	33.6	33.6	-----	36.8	29.4	28.9	-----	41.4	33.5	33.9
Milk, fresh	Quart	10.0	20.0	18.0	18.0	8.8	13.0	14.0	14.0	10.3	20.0	16.3	16.3
Milk, evaporated	15–16 oz. can	-----	13.5	13.5	13.4	-----	11.2	11.3	11.3	-----	12.6	12.6	12.6
Butter	Pound	37.1	55.5	54.7	54.1	37.0	54.8	56.4	55.5	39.0	56.5	56.1	56.8
Oleomargarine (all butter substitutes)	do	-----	32.5	27.7	26.8	-----	30.4	28.8	28.0	-----	36.1	32.2	32.3
Cheese	do	25.0	34.4	36.3	36.2	22.0	33.9	35.0	35.1	23.0	35.3	36.5	36.2
Lard	do	15.7	22.9	18.3	18.8	15.0	21.7	16.9	17.1	16.8	23.8	19.6	19.6
Vegetable lard substitute	do	-----	23.8	21.8	21.9	-----	24.7	22.3	22.4	-----	22.2	22.1	22.2
Eggs, strictly fresh	Dozen	22.6	40.0	33.1	36.7	25.9	38.7	30.3	32.6	28.3	42.3	32.5	35.5
Bread	Pound	6.0	10.9	10.8	10.8	5.4	9.7	9.9	9.9	5.4	10.3	10.4	10.4
Flour	do	3.6	6.9	6.5	6.5	3.2	5.8	5.3	5.3	3.8	7.0	6.6	6.6
Corn meal	do	2.6	4.0	3.7	3.9	2.5	3.9	4.1	4.0	2.3	4.2	4.0	4.2
Rolled oats	do	-----	9.5	9.5	9.3	-----	8.3	8.2	8.2	-----	9.9	10.1	9.9
Corn flakes	6-oz. pkg.	-----	11.3	9.8	9.8	-----	10.1	9.0	9.1	-----	12.0	11.1	11.1
Wheat cereal	28-oz. pkg.	-----	26.6	26.2	26.2	-----	24.3	24.2	24.1	-----	27.1	27.6	27.6
Macaroni	Pound	-----	21.6	21.7	21.7	-----	18.7	19.1	19.0	-----	19.1	18.9	19.1
Rice	do	8.6	11.3	10.5	10.5	9.0	10.8	9.5	9.7	8.2	11.8	10.5	11.0
Beans, navy	do	-----	10.5	10.2	10.4	-----	7.8	8.1	8.4	-----	10.8	10.1	10.1
Potatoes	do	2.2	5.6	8.6	5.4	1.7	3.5	5.6	3.4	2.1	6.0	6.3	5.5
Onions	do	-----	8.2	9.3	8.7	-----	6.6	8.8	6.9	-----	8.3	8.9	8.9
Cabbage	do	-----	4.9	6.2	6.3	-----	5.1	8.1	4.2	-----	5.6	5.8	6.2
Beans, baked	No. 2 can	-----	11.7	11.4	11.1	-----	10.6	10.4	10.3	-----	12.7	11.7	11.5
Corn, canned	do	-----	17.7	18.2	18.2	-----	15.2	14.2	14.3	-----	18.3	16.4	15.9
Peas, canned	do	-----	19.2	19.3	19.7	-----	15.6	14.5	14.5	-----	21.9	20.8	20.4
Tomatoes, canned	do	-----	10.8	11.5	11.5	-----	10.1	10.7	10.7	-----	10.8	10.9	11.3
Sugar, granulated	Pound	5.8	7.4	7.7	7.8	4.9	6.5	6.5	6.7	5.5	7.4	7.9	7.8
Tea	do	60.0	106.6	104.1	103.8	56.0	74.8	73.0	73.4	61.3	97.5	96.2	95.6
Coffee	do	32.0	51.1	49.2	49.6	24.8	47.9	43.3	43.1	28.8	53.9	52.2	51.8
Prunes	do	-----	18.8	17.2	17.8	-----	14.6	13.1	13.3	-----	19.8	17.9	19.1
Raisins	do	-----	17.9	16.3	16.3	-----	13.5	13.0	13.0	-----	15.5	14.7	14.9
Bananas	Dozen	-----	28.0	29.5	29.5	-----	25.4	25.0	24.5	-----	37.1	37.9	38.1
Oranges	do	-----	49.3	45.9	49.8	-----	49.8	49.9	50.8	-----	53.0	46.9	49.9

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be grouped as "porterhouse" steak.

51 Cities on Specified Dates

for July 15, 1913 and 1926, and for June 15 and July 15, 1927. the exception of July 15, 1913, as these cities were not scheduled

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES

particularly meats and vegetables, owing to differences in trade practices]

Boston, Mass.				Bridgeport, Conn.			Buffalo, N. Y.				Butte, Mont.			Charleston, S. C.			
July 15—		June 15, 1927	July 15, 1927	July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
1913	1926						1913	1926						1913	1926		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
[1] 35.8	[1] 66.0	[1] 68.4	[1] 70.2	48.2	49.0	53.5	24.0	42.1	42.5	43.5	32.5	34.4	35.0	21.8	33.5	33.3	33.0
35.8	51.5	54.3	55.3	41.7	42.8	46.0	20.8	35.4	36.0	37.0	28.8	31.3	31.4	20.0	32.0	31.3	30.7
25.6	39.6	39.3	39.7	36.7	37.4	40.4	17.0	30.3	32.1	31.5	28.3	29.0	28.8	20.5	27.5	26.7	27.0
18.7	27.9	29.4	30.8	27.1	28.1	29.9	15.8	23.4	24.2	24.3	20.2	20.8	21.4	15.0	20.5	21.0	20.2
-----	18.5	19.5	20.3	11.5	11.5	12.9	11.8	13.5	14.1	14.0	12.5	14.3	14.4	10.6	14.9	14.6	14.6
24.2	44.4	36.2	35.7	43.5	37.1	38.2	22.3	44.9	37.1	36.8	40.2	35.4	35.2	20.0	39.9	35.9	34.3
25.8	49.9	45.6	44.7	53.9	52.4	50.8	25.0	48.4	43.4	41.8	59.2	54.6	55.0	26.3	47.4	41.0	40.4
33.0	66.3	60.3	59.6	67.3	59.3	58.2	28.7	59.8	53.6	53.1	63.8	60.4	59.2	28.3	56.9	51.1	50.8
25.0	42.5	42.8	42.1	42.1	42.8	43.6	17.0	37.6	37.1	36.0	40.0	40.5	39.5	21.7	44.3	41.3	40.6
26.2	42.5	40.0	38.3	42.3	39.5	38.1	22.0	40.5	38.1	36.7	36.8	35.7	34.7	22.2	41.8	37.6	36.7
-----	38.0	31.6	31.6	35.5	31.5	31.5	-----	37.8	30.9	30.5	31.9	30.9	31.1	-----	39.6	29.0	29.0
8.9	14.9	14.4	14.3	15.0	16.0	16.0	8.0	13.0	13.0	13.0	14.3	14.0	14.0	11.7	18.0	19.0	19.0
-----	12.2	12.2	12.0	11.6	11.5	11.5	-----	11.2	11.3	11.3	11.2	11.5	11.2	-----	12.0	11.8	11.8
35.5	51.1	54.9	56.3	50.7	52.7	52.8	33.0	51.8	52.0	51.4	47.3	48.6	49.1	34.0	49.3	50.6	50.0
-----	29.3	28.2	28.3	29.8	28.4	27.4	-----	27.8	28.7	28.1	-----	-----	-----	-----	31.4	30.6	30.6
22.3	36.6	38.0	38.6	39.3	40.1	40.5	20.5	36.6	39.0	38.8	35.5	36.7	36.5	20.0	31.7	33.6	33.0
16.0	23.1	18.9	18.9	22.5	17.6	18.1	14.5	21.9	17.6	17.6	24.9	23.7	23.8	15.0	24.0	20.0	20.6
-----	25.2	24.4	25.1	25.9	25.1	25.3	-----	26.1	25.9	25.9	29.2	29.7	29.7	-----	24.8	22.9	21.7
37.3	57.5	47.7	56.7	54.6	45.1	49.9	28.3	43.0	33.3	36.3	49.7	39.9	42.8	25.8	49.0	32.1	35.7
5.9	9.1	8.5	8.5	8.8	8.9	8.8	5.6	8.9	8.5	8.7	9.8	9.8	9.8	6.2	10.4	10.9	10.9
3.8	6.5	6.1	6.2	6.2	5.7	5.8	3.1	5.6	5.1	5.1	6.0	5.4	5.5	3.7	7.3	6.9	6.9
3.5	6.5	6.6	6.6	8.0	7.6	7.7	2.6	5.4	5.1	5.1	5.9	6.0	5.8	2.4	4.0	3.9	3.9
-----	9.2	9.1	9.2	8.5	8.5	8.5	-----	8.6	8.6	8.7	7.3	7.5	7.5	-----	9.4	9.5	9.5
-----	10.7	10.1	10.1	10.5	9.7	9.7	-----	10.2	9.6	9.5	12.3	10.9	10.9	-----	12.0	10.2	10.2
-----	24.6	25.1	25.2	24.6	24.8	24.8	-----	24.7	24.7	24.7	28.4	28.3	28.5	-----	27.0	26.0	25.8
-----	22.7	22.7	22.5	22.7	22.7	22.7	-----	21.5	21.2	21.1	19.2	20.1	19.5	-----	19.0	18.6	18.6
9.4	12.7	11.9	12.0	11.7	11.5	11.5	9.3	11.6	10.1	10.3	12.3	11.1	11.1	5.5	9.8	7.4	7.3
-----	10.1	10.2	10.1	9.9	9.5	9.6	-----	8.7	8.5	8.8	10.6	10.1	10.1	-----	10.0	10.0	9.7
2.2	3.9	5.3	3.7	4.1	5.9	3.5	2.0	3.6	5.6	3.4	4.1	4.6	4.6	2.2	3.3	4.4	4.3
-----	7.8	8.9	7.2	7.6	9.5	8.6	-----	7.7	9.4	8.7	5.4	9.2	8.5	-----	6.8	7.4	7.8
-----	6.8	10.2	5.9	6.2	9.6	6.1	-----	4.9	10.4	5.5	6.6	12.0	8.0	-----	3.7	5.6	6.9
-----	13.2	13.5	13.3	11.3	11.6	11.5	-----	10.0	9.9	9.9	14.5	13.9	13.9	-----	10.0	9.7	9.8
-----	18.9	18.1	18.0	19.4	18.2	18.1	-----	15.8	15.6	15.2	15.9	14.8	15.0	-----	15.0	14.1	14.3
-----	20.5	20.3	20.4	21.2	21.1	21.0	-----	16.1	16.0	16.0	14.5	13.9	13.9	-----	17.8	16.7	16.3
-----	11.9	12.5	12.1	13.2	13.1	13.8	-----	13.3	13.4	13.1	13.7	12.9	12.9	-----	10.1	10.2	10.2
5.4	6.7	7.4	7.4	6.5	7.1	7.1	5.3	6.6	7.2	7.1	8.2	8.7	8.7	5.0	6.4	7.0	7.0
58.6	74.9	75.1	74.4	60.3	60.9	60.9	45.0	71.2	67.2	66.6	83.8	81.9	82.3	50.0	74.0	76.9	82.4
33.0	55.5	52.7	52.2	48.6	46.1	46.0	29.3	48.8	46.7	45.9	57.1	54.5	54.5	26.3	46.1	43.9	43.9
-----	16.5	15.3	15.4	16.0	15.8	16.0	-----	16.3	14.1	14.2	19.3	15.6	15.3	-----	14.9	14.3	14.3
-----	14.0	13.3	13.3	14.1	14.2	14.2	-----	14.4	13.4	13.6	16.1	15.1	15.0	-----	14.2	14.5	14.6
-----	44.5	44.4	42.2	35.5	34.0	34.5	-----	42.1	42.3	40.8	[1] 14.8	[2] 14.4	[2] 13.5	-----	38.3	27.5	26.3
-----	52.4	51.2	54.7	53.7	55.2	59.7	-----	54.1	55.2	55.7	45.8	48.0	45.0	-----	45.0	40.0	40.0

[1] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Chicago, Ill.				Cincinnati, Ohio				Cleveland, Ohio			
		July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
		1913	1926			1913	1926			1913	1926		
Sirloin steak	Pound	Cts. 24.2	Cts. 43.9	Cts. 44.5	Cts. 46.0	Cts. 23.8	Cts. 39.1	Cts. 38.6	Cts. 39.1	Cts. 26.0	Cts. 39.4	Cts. 42.2	Cts. 42.7
Round steak	do	21.3	36.0	36.0	37.3	21.3	35.3	35.2	35.7	23.0	33.7	36.4	36.8
Rib roast	do	20.2	34.7	34.4	35.0	19.1	30.4	31.2	31.6	20.0	28.7	29.5	30.0
Chuck roast	do	15.9	24.6	25.2	25.5	15.2	22.1	23.0	23.1	17.5	23.0	24.6	24.8
Plate beef	do	11.3	14.5	15.0	15.9	11.6	15.3	15.9	15.6	11.7	13.6	14.4	14.1
Pork chops	do	20.4	39.7	31.5	32.4	20.6	39.9	30.2	32.7	23.2	42.5	34.0	35.4
Bacon, sliced	do	32.7	55.6	50.3	49.9	26.7	46.8	41.3	40.3	30.1	52.7	46.7	46.2
Ham, sliced	do	32.3	58.5	55.9	54.0	29.7	60.0	55.2	53.3	38.0	63.7	55.8	54.3
Lamb, leg of	do	20.2	41.5	41.8	39.3	15.7	39.2	39.2	37.3	20.7	39.4	39.9	39.9
Hens	do	20.2	39.3	36.5	35.0	23.3	39.5	38.3	37.9	22.0	40.3	36.9	36.5
Salmon, canned, red	do	-----	39.3	34.3	34.9	-----	36.8	30.5	30.8	-----	39.6	32.9	33.1
Milk, fresh	Quart	8.0	14.0	14.0	14.0	8.0	12.0	13.3	13.3	8.0	13.7	13.7	14.0
Milk, evaporated	15–16 oz. can.	-----	11.0	11.2	11.2	-----	10.8	11.2	11.3	-----	11.2	11.4	11.4
Butter	Pound	32.3	47.1	50.3	50.1	34.4	48.8	50.9	49.8	35.2	51.5	53.5	53.5
Oleomargarine (all butter substitutes)	do	-----	27.0	26.9	26.9	-----	30.1	27.7	27.9	-----	32.2	29.2	29.2
Cheese	do	25.0	40.7	42.1	41.5	21.0	35.1	36.3	36.2	23.0	35.5	39.0	38.4
Lard	do	15.1	22.3	18.8	19.0	14.2	21.1	16.7	17.0	16.5	23.7	20.0	20.2
Vegetable lard substitute	do	-----	26.3	26.7	26.6	-----	26.1	25.8	25.7	-----	27.5	26.7	26.6
Eggs, strictly fresh	Dozen	25.3	42.8	35.9	37.8	22.4	35.8	28.3	34.0	29.8	41.7	33.7	38.4
Bread	Pound	6.1	9.8	9.9	9.9	4.8	9.2	9.0	8.9	5.5	8.0	7.7	7.7
Flour	do	2.9	5.6	5.3	5.3	3.3	6.3	5.7	5.8	3.2	6.1	5.6	5.6
Corn meal	do	2.8	6.1	6.7	6.7	2.7	4.0	4.0	4.2	2.7	5.2	5.3	5.6
Rolled oats	do	-----	8.3	8.7	8.4	-----	8.6	8.7	8.7	-----	9.5	9.4	9.4
Corn flakes	8-oz. pkg.	-----	10.1	9.7	9.6	-----	10.3	9.8	9.4	-----	11.3	10.1	9.9
Wheat cereal	28-oz. pkg.	-----	24.5	25.2	25.0	-----	24.6	24.8	24.8	-----	25.5	25.3	25.5
Macaroni	Pound	-----	19.2	19.2	19.1	-----	18.2	18.5	18.4	-----	21.6	22.0	21.8
Rice	do	8.7	11.9	11.1	11.1	8.8	11.2	10.3	9.8	8.5	11.9	11.3	11.1
Beans, navy	do	-----	9.2	9.6	9.7	-----	7.6	7.8	8.5	-----	7.7	8.5	8.6
Potatoes	do	2.1	4.4	6.4	4.3	2.2	4.9	6.9	4.5	2.0	3.9	6.5	4.0
Onions	do	-----	6.5	9.0	8.0	-----	6.1	9.0	6.6	-----	7.4	9.4	8.3
Cabbage	do	-----	5.3	11.4	5.8	-----	4.4	10.9	5.5	-----	5.5	11.0	5.6
Beans, baked	No. 2 can	-----	12.7	12.6	12.9	-----	10.9	10.4	10.5	-----	13.3	13.1	13.1
Corn, canned	do	-----	16.4	16.1	15.8	-----	15.5	14.7	14.6	-----	17.4	16.8	16.9
Peas, canned	do	-----	17.2	16.7	16.8	-----	17.5	16.7	16.8	-----	17.7	18.1	18.2
Tomatoes, canned	do	-----	14.1	13.8	13.8	-----	11.6	12.0	11.8	-----	13.5	14.0	14.1
Sugar, granulated	Pound	5.1	6.6	7.1	7.1	5.2	7.0	7.5	7.6	5.3	7.1	7.6	7.5
Tea	do	53.3	71.4	73.3	74.2	60.0	77.7	75.5	75.5	50.0	81.3	79.7	81.6
Coffee	do	30.7	51.3	48.2	48.0	25.6	46.8	42.6	42.9	26.5	54.4	51.3	50.4
Prunes	do	-----	18.6	17.5	17.6	-----	18.1	16.0	16.3	-----	17.7	15.2	15.5
Raisins	do	-----	15.4	15.1	15.1	-----	15.1	14.4	14.9	-----	14.9	14.6	14.7
Bananas	Dozen	-----	41.3	38.8	38.8	-----	35.0	35.0	36.1	-----	[1]10.4	[1]10.4	[1]10.3
Oranges	do	-----	52.0	47.6	55.2	-----	46.5	45.7	45.4	-----	50.2	54.9	54.7

[1] The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Columbus, Ohio			Dallas, Tex.				Denver, Colo.				Detroit, Mich.				Fall River, Mass.			
July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
			1913	1926			1913	1926			1913	1926			1913	1926		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
39.6	40.4	41.4	22.8	35.8	37.3	38.1	25.3	36.0	36.0	36.6	25.0	42.7	42.3	43.9	[1]35.5	[1]60.5	[1] 62.4	[1] 66.9
35.2	35.9	36.6	20.8	32.7	34.5	34.6	23.2	32.6	32.9	33.7	20.2	35.8	36.1	36.8	28.0	45.5	46.7	50.2
30.6	32.1	31.8	19.7	27.6	28.3	29.0	17.8	25.1	26.3	26.0	19.8	31.0	32.5	32.7	24.0	31.6	32.6	34.1
24.7	26.1	26.0	16.3	20.4	23.3	23.5	16.2	20.7	21.0	21.3	15.0	23.5	23.9	24.5	18.5	22.8	23.8	25.2
15.2	16.3	16.6	13.2	17.5	18.1	18.3	9.6	11.8	12.2	12.0	11.5	14.6	14.4	14.7	-----	13.9	13.3	13.9
38.9	34.1	33.0	22.0	38.2	35.4	35.8	20.3	39.9	30.9	31.3	20.6	43.3	34.9	35.7	22.5	40.5	35.3	35.4
53.8	49.9	48.3	38.0	51.3	45.3	45.3	31.0	53.5	46.7	46.2	24.5	54.8	49.6	48.2	26.2	46.6	44.6	43.9
60.5	56.2	54.6	31.3	63.8	57.4	57.4	33.3	60.8	55.5	53.4	28.0	64.4	58.8	58.3	32.7	57.3	56.0	54.3
42.8	47.5	47.5	22.0	42.0	44.3	46.4	17.8	39.4	37.8	37.8	17.6	43.8	42.3	41.6	21.0	45.8	44.2	43.8
40.0	37.7	36.0	17.8	33.2	31.5	31.7	21.4	32.6	29.4	30.3	21.6	41.3	38.2	37.2	25.0	45.6	42.7	41.9
41.3	35.4	35.4	-----	41.7	33.4	33.9	-----	38.7	32.5	32.6	-----	39.8	31.9	32.3	-----	40.1	33.8	34.7
11.0	12.0	12.0	10.0	12.0	11.0	13.0	8.4	12.0	12.0	12.0	7.9	14.0	14.0	14.0	9.0	14.1	14.0	14.0
11.3	11.4	11.6	-----	12.8	13.1	13.3	-----	10.8	10.7	10.7	-----	11.0	11.2	11.3	-----	12.7	12.7	12.7
48.0	50.4	50.4	36.0	49.5	49.3	50.3	36.4	44.4	46.8	45.1	33.7	50.3	53.0	52.0	35.1	50.0	52.1	50.9
29.8	27.7	27.5	-----	33.8	31.0	30.7	-----	29.2	25.0	25.0	-----	28.8	27.6	27.4	-----	30.4	30.5	30.5
35.4	36.5	35.7	20.0	35.2	36.9	37.1	26.1	37.2	36.8	36.8	20.7	36.2	38.7	38.5	23.4	38.0	39.3	39.3
21.0	16.1	16.2	16.8	25.7	21.8	22.4	16.3	23.7	19.1	19.2	16.3	23.0	18.8	18.9	15.2	21.8	18.2	18.1
26.3	26.2	26.2	-----	25.3	22.7	23.0	-----	25.4	22.3	22.3	-----	27.2	26.9	27.1	-----	26.7	26.4	26.4
34.3	26.5	30.6	24.0	37.3	27.3	30.6	27.1	37.8	29.1	33.1	27.0	41.3	34.2	36.0	38.0	53.2	43.9	49.8
8.1	7.8	7.8	5.4	9.6	9.5	9.5	5.4	8.3	8.1	7.9	5.6	8.3	8.4	8.5	6.2	9.3	9.2	9.2
6.1	5.4	5.4	3.3	5.8	5.5	5.5	2.6	5.0	4.4	4.4	3.2	6.0	5.3	5.4	3.4	6.4	5.8	5.8
3.7	3.7	3.8	2.6	4.2	4.4	4.5	2.4	4.3	4.4	4.5	2.8	5.7	6.1	6.5	3.4	6.5	6.7	6.8
9.4	9.4	9.4	-----	10.3	10.4	10.9	-----	8.6	7.6	7.6	-----	9.4	9.5	9.6	-----	9.6	9.4	9.4
10.8	10.0	9.9	-----	10.8	10.5	10.5	-----	11.0	9.8	9.6	-----	10.6	10.0	9.9	-----	11.5	10.4	10.2
24.9	26.4	26.4	-----	27.3	27.9	27.9	-----	24.8	24.8	24.6	-----	25.8	25.7	25.5	-----	25.3	25.3	25.0
21.5	21.0	21.0	-----	20.9	21.4	21.8	-----	20.6	19.6	19.9	-----	21.7	22.3	22.3	-----	24.5	24.5	24.2
13.3	12.6	12.1	9.3	13.0	11.9	11.4	8.6	11.4	9.7	10.1	8.4	12.1	11.7	11.9	10.0	11.8	10.6	10.8
7.8	8.0	8.2	-----	10.3	10.6	11.1	-----	10.0	10.1	10.5	-----	8.1	8.5	8.4	-----	9.9	10.3	10.4
4.7	6.6	4.1	2.2	5.7	6.5	5.9	2.1	3.7	7.1	4.6	1.9	3.6	5.9	3.7	2.2	3.9	5.7	3.6
8.1	9.8	8.8	-----	5.4	9.0	8.4	-----	6.5	8.5	7.7	-----	7.0	9.5	7.6	-----	7.9	9.9	8.7
5.2	13.1	5.5	-----	5.6	9.5	7.6	-----	3.5	10.3	3.5	-----	4.9	10.4	4.7	-----	5.6	11.1	5.7
12.5	12.5	12.5	-----	13.2	13.1	12.9	-----	11.9	11.3	11.1	-----	11.9	11.5	11.7	-----	12.4	12.3	12.2
15.8	14.0	13.8	-----	17.8	18.3	18.1	-----	14.9	13.7	13.5	-----	15.8	16.2	16.2	-----	16.8	15.9	16.2
15.0	15.1	14.7	-----	21.9	22.0	21.7	-----	15.5	15.0	14.7	-----	16.1	16.8	17.0	-----	18.9	18.5	18.1
12.3	13.3	12.8	-----	11.7	13.1	13.1	-----	12.6	11.7	11.4	-----	11.7	12.6	12.6	-----	11.9	13.2	13.2
7.2	7.8	7.8	5.7	7.8	8.0	8.2	5.6	7.4	8.0	7.9	5.3	7.0	7.5	7.5	5.4	6.9	7.4	7.3
90.2	88.8	91.1	66.7	106.2	106.7	105.9	52.8	69.8	68.8	68.8	43.3	73.3	75.5	75.5	44.2	60.3	63.8	63.8
51.6	49.0	48.7	36.7	60.5	58.1	57.7	29.4	51.5	49.2	49.2	29.3	51.5	49.2	48.5	33.0	52.5	49.2	48.5
17.4	16.9	17.1	-----	21.3	21.0	21.8	-----	17.9	15.9	16.3	-----	18.4	18.2	18.2	-----	15.8	15.1	14.8
15.1	14.3	14.7	-----	16.9	16.0	16.5	-----	14.7	14.3	14.2	-----	15.6	15.2	15.3	-----	14.2	13.8	13.8
36.7	37.9	38.6	-----	33.8	33.8	36.3	-----	[1]11.5	[1]11.1	[1]10.8	-----	35.0	33.9	34.4	-----	[1]9.6	[1]9.4	[1]9.4
47.1	50.5	50.0	-----	54.8	49.9	48.7	-----	41.1	43.4	44.0	-----	50.8	57.1	55.8	-----	46.3	51.8	53.2

[1] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Houston, Tex.			Indianapolis, Ind.				Jacksonville, Fla.			
		July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
					1913	1926			1913	1926		
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	34.0	35.4	35.0	25.5	39.5	39.9	40.6	26.0	37.1	35.8	36.3
Round steak	do	32.8	33.9	33.6	24.7	38.1	39.0	39.1	22.0	31.9	31.3	32.1
Rib roast	do	26.3	27.5	27.5	18.2	29.6	30.1	30.3	23.3	28.8	27.1	27.3
Chuck roast	do	20.3	21.4	22.0	16.4	24.7	25.3	25.0	14.0	20.6	19.2	20.3
Plate beef	do	17.5	18.2	18.0	12.1	15.4	16.1	15.8	10.3	12.9	12.5	13.0
Pork chops	do	38.3	34.3	33.2	22.0	42.1	32.2	32.9	22.3	40.6	33.1	32.1
Bacon, sliced	do	52.2	45.8	45.1	30.7	49.3	42.3	43.0	27.8	50.0	44.1	43.6
Ham, sliced	do	57.1	53.2	52.5	32.8	63.0	54.9	54.6	28.7	58.8	53.2	50.9
Lamb, leg of	do	37.0	34.3	35.7	21.7	41.7	42.5	41.3	19.3	38.3	39.0	39.9
Hens	do	35.0	32.9	31.1	21.0	40.2	36.2	36.3	22.8	40.4	35.8	33.8
Salmon, canned, red	do	37.1	30.3	30.2	----	36.3	33.5	33.5	----	38.1	32.0	32.6
Milk, fresh	Quart	15.8	15.6	15.2	8.0	12.0	12.0	12.0	12.4	22.0	20.3	20.3
Milk, evaporated	15–16 oz. can	11.5	11.5	11.6	----	10.8	10.7	10.7	----	11.6	11.9	11.9
Butter	Pound	48.9	47.3	49.5	33.2	48.6	51.1	50.4	38.6	51.8	52.6	52.5
Oleomargarine (all butter substitutes).	do	30.5	27.2	27.8	----	30.2	28.9	29.1	----	30.8	30.6	30.9
Cheese	do	30.6	31.9	32.6	21.3	35.5	37.2	37.2	22.5	32.2	34.0	34.8
Lard	do	23.8	18.9	19.6	15.2	21.4	16.4	16.8	15.5	24.0	21.4	21.3
Vegetable lard substitute	do	21.2	16.8	16.7	----	26.7	27.4	27.4	----	24.8	22.4	23.3
Eggs, strictly fresh	Dozen	36.8	27.9	30.0	22.2	35.8	26.6	29.8	30.6	45.8	34.5	38.4
Bread	Pound	9.0	8.5	8.5	5.1	8.1	8.1	8.1	6.4	11.0	10.9	10.9
Flour	do	5.7	5.2	5.2	3.2	5.9	5.5	5.5	3.8	6.8	6.5	6.7
Corn meal	do	4.1	4.2	4.2	2.6	4.1	4.2	4.2	3.0	4.1	4.2	4.2
Rolled oats	do	8.9	8.5	8.8	----	8.1	8.3	8.3	----	9.3	9.6	9.5
Corn flakes	8-oz. pkg	11.7	9.7	9.5	----	10.2	9.7	9.4	----	11.2	9.7	9.9
Wheat cereal	28-oz. pkg	25.8	25.4	25.4	----	24.8	24.8	25.5	----	24.9	24.4	24.4
Macaroni	Pound	18.3	18.4	18.4	----	19.0	19.7	19.7	----	19.8	19.4	19.4
Rice	do	10.2	8.8	9.0	9.2	12.1	10.8	10.7	6.6	11.2	9.2	9.4
Beans, navy	do	9.6	9.6	9.7	----	7.5	8.5	8.7	----	10.5	9.4	9.8
Potatoes	do	5.3	6.1	5.5	2.2	4.6	6.4	4.2	2.6	5.9	6.4	4.8
Onions	do	5.5	7.7	8.2	----	7.3	9.8	7.9	----	7.8	8.4	8.6
Cabbage	do	4.5	7.7	5.8	----	4.2	12.5	6.7	----	5.3	8.6	7.8
Beans, baked	No. 2 can	11.3	11.2	11.0	----	10.1	10.3	10.3	----	10.8	10.8	10.8
Corn, canned	do	15.6	13.7	14.2	----	15.0	13.9	13.9	----	20.2	18.3	17.8
Peas, canned	do	14.2	13.5	13.7	----	15.2	13.7	13.7	----	18.8	17.6	17.6
Tomatoes, canned	do	9.8	10.8	10.7	----	11.3	12.8	13.0	----	10.3	10.1	10.3
Sugar, granulated	Pound	6.9	7.2	7.1	5.8	7.2	7.6	7.5	5.9	7.0	7.8	7.8
Tea	do	80.8	84.8	84.8	60.0	86.1	87.9	87.9	60.0	97.5	98.9	98.9
Coffee	do	44.8	41.1	41.2	30.0	50.9	48.0	47.6	34.5	50.3	48.8	47.8
Prunes	do	16.7	15.8	15.0	----	20.3	17.3	18.5	----	17.4	16.0	16.1
Raisins	do	14.5	14.4	14.5	----	16.1	15.1	15.4	----	16.5	14.8	14.7
Bananas	Dozen	29.5	26.9	25.8	----	31.4	30.5	30.5	----	30.0	25.8	26.7
Oranges	do	42.5	41.8	41.4	----	49.1	46.9	47.4	----	72.5	34.4	46.7

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Kansas City, Mo.				Little Rock, Ark.				Los Angeles, Calif.				Louisville, Ky.				Manchester, N. H.			
July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
1913	1926			1913	1926			1913	1926			1913	1926			1913	1926		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
24.7	40.2	38.5	38.7	26.7	35.0	36.0	37.8	24.0	36.7	37.4	37.4	23.6	35.8	37.8	37.7	[1]36.2	[1]58.3	[1]59.4	[1]62.6
21.8	35.2	34.2	34.4	20.0	31.9	33.2	34.1	21.0	30.2	30.6	30.8	20.4	31.3	34.2	34.5	29.7	45.9	47.5	49.0
17.8	27.0	27.0	27.5	20.0	27.7	28.9	29.4	19.6	30.2	29.3	29.0	18.3	27.4	27.6	27.5	20.7	28.4	28.1	30.6
14.9	20.3	19.8	20.0	16.7	21.8	21.9	22.3	15.8	20.0	19.9	20.2	15.6	19.3	22.1	21.3	17.2	23.8	24.0	24.7
11.7	13.3	13.6	13.9	13.8	15.7	17.0	16.9	12.3	14.3	13.9	13.6	13.1	15.9	17.5	17.3	----	16.3	16.8	17.4
21.4	40.1	31.8	32.6	23.3	38.7	31.4	31.4	26.4	48.6	42.1	41.9	20.1	37.2	30.9	32.1	20.7	40.2	32.0	32.4
30.6	53.5	44.3	44.3	37.5	54.9	47.5	47.1	34.0	63.0	55.3	55.0	29.4	51.7	47.7	47.3	24.0	43.3	38.1	38.9
28.8	60.5	53.3	52.2	30.0	57.7	54.6	51.3	36.7	73.0	68.6	66.7	30.0	55.5	50.0	49.2	29.2	53.9	45.7	46.6
18.5	35.8	37.6	36.7	20.8	38.1	43.3	40.8	18.8	38.0	36.7	37.2	18.3	40.0	42.5	42.0	21.8	40.4	39.5	40.3
17.8	34.1	30.6	29.8	20.0	30.2	29.8	27.3	26.4	44.6	42.6	41.1	23.3	39.6	32.0	34.5	24.3	45.4	42.4	42.9
----	39.2	34.0	34.9	----	41.4	32.5	32.1	----	36.1	30.6	30.9	----	38.9	30.4	30.5	-----	39.1	31.3	31.6
8.7	13.0	13.0	13.0	10.0	15.0	15.0	15.0	10.0	15.0	15.0	15.0	8.8	12.0	12.0	12.0	8.0	14.0	13.8	13.8
----	11.7	11.7	11.7	----	11.9	12.1	12.0	----	10.0	10.3	10.3	----	11.9	11.9	11.9	-----	12.7	12.7	12.7
35.4	48.6	49.5	49.5	39.4	49.7	50.3	50.5	37.0	50.2	50.3	50.3	35.3	49.5	53.4	51.0	38.1	51.9	54.7	57.7
----	27.5	25.6	25.5	----	31.1	28.2	27.8	----	31.4	26.2	26.2	----	32.2	27.5	27.4	-----	26.0	25.8	25.8
21.8	35.0	35.5	35.7	23.3	34.8	36.8	36.8	19.5	38.7	38.1	38.2	21.7	36.1	36.8	37.1	21.0	36.5	36.6	36.7
16.2	23.5	18.7	18.8	16.3	24.5	21.3	21.0	18.3	24.9	19.1	19.2	15.4	21.7	17.9	18.1	16.0	22.1	18.3	18.2
----	27.3	27.4	27.4	----	24.4	22.1	20.0	----	26.1	24.5	24.3	----	29.0	29.1	28.7	-----	25.6	26.0	26.1
23.1	37.0	28.1	31.0	26.7	37.9	26.9	33.4	33.0	45.6	35.4	34.8	22.1	36.0	25.7	28.2	32.3	54.1	41.5	48.2
6.1	10.0	9.7	9.6	6.0	9.5	9.2	9.2	6.0	8.6	8.5	8.4	5.7	9.4	9.3	9.3	6.1	8.7	8.7	8.7
3.0	5.8	5.0	5.2	3.5	6.5	6.1	6.1	3.6	5.6	5.3	5.3	3.5	6.4	6.2	6.2	3.4	6.3	5.8	5.9
2.6	4.9	5.0	5.0	2.4	4.1	3.8	4.0	3.2	5.3	5.3	5.4	2.3	3.8	4.0	4.1	3.4	5.4	5.4	5.3
----	9.1	9.1	9.1	----	10.6	10.3	10.3	----	9.7	10.0	10.0	----	8.5	8.6	8.6	-----	9.0	9.1	9.1
----	12.0	10.2	10.1	----	11.9	10.2	10.2	----	10.1	9.7	9.5	----	10.8	9.8	9.6	-----	11.2	9.9	9.7
----	27.0	26.4	26.3	----	25.4	25.9	25.9	----	24.9	24.9	24.9	----	24.2	25.1	25.2	-----	25.7	25.4	25.8
----	20.6	19.9	19.9	----	20.4	20.2	20.1	----	18.4	18.3	18.4	----	19.1	18.9	18.9	-----	23.9	23.6	23.7
8.7	11.3	9.8	9.9	8.3	10.0	8.6	8.6	7.7	11.2	10.1	10.2	8.1	11.3	11.4	11.5	8.8	11.1	10.0	10.0
----	9.2	9.3	9.5	----	9.6	9.1	9.3	----	9.2	9.6	10.0	----	7.7	8.2	8.5	-----	9.0	9.1	9.1
1.8	3.5	6.2	3.0	1.8	5.0	5.5	4.8	1.7	3.6	5.2	4.1	2.0	4.6	7.5	3.7	2.0	3.6	4.9	3.4
----	6.5	8.8	7.7	----	6.9	9.1	8.2	----	5.4	7.4	6.9	----	6.7	9.6	6.6	-----	7.1	7.8	7.5
----	3.7	7.5	4.0	----	5.8	7.4	6.1	----	4.5	9.2	7.2	----	5.4	9.6	5.3	-----	7.2	10.5	6.0
----	12.8	12.5	12.3	----	11.6	10.4	10.4	----	11.4	10.6	11.2	----	10.7	10.2	10.2	-----	13.9	13.0	13.4
----	14.6	14.0	13.9	----	16.6	16.6	16.6	----	16.2	15.6	15.8	----	16.0	14.9	14.6	-----	17.2	15.9	15.9
----	15.4	14.8	14.7	----	17.8	17.5	17.8	----	17.3	17.0	17.2	----	16.3	13.8	14.6	-----	19.1	17.7	17.9
----	12.3	11.7	11.5	----	10.6	10.7	10.7	----	[2]15.3	[2]14.4	[2]14.5	----	9.9	10.8	10.9	-----	11.7	12.9	13.1
5.7	7.2	7.6	7.6	5.8	7.6	7.9	7.9	5.5	6.7	7.0	7.0	5.2	7.2	7.8	7.7	5.3	7.0	7.6	7.6
54.0	85.3	89.7	90.1	50.0	108.1	107.4	107.4	54.5	75.1	74.1	74.7	62.5	82.6	91.2	90.4	47.0	64.3	64.2	63.5
27.8	54.2	49.4	49.0	30.8	54.9	51.5	50.8	36.3	54.5	51.4	51.2	27.5	49.7	47.6	47.3	32.0	52.6	48.3	47.9
----	18.1	15.9	16.4	----	18.5	16.8	17.6	----	16.2	14.4	14.5	----	18.2	15.7	16.3	-----	16.1	14.6	14.2
----	15.5	14.8	14.8	----	15.5	15.7	15.5	----	13.4	12.9	12.7	----	15.9	14.4	14.7	-----	14.3	13.9	14.0
----	[3]11.0	[3]10.2	[3]10.3	----	[3]9.3	[3]8.1	[3]8.1	----	[3]9.7	[3]9.3	[3]9.3	----	[3]10.4	[3]9.9	[3]9.8	-----	[3]9.5	[3]9.2	[3]9.2
----	46.6	49.3	46.5	----	51.5	45.5	44.6	----	48.8	48.6	47.7	----	46.3	43.8	42.3	-----	48.2	48.8	50.9

[1] No. 2½ can.

[2] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
		1913	1926			1913	1926			1913	1926		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	22.9	35.8	37.0	37.3	23.0	39.1	39.2	40.5	24.2	33.6	35.1	35.8
Round steak	do	19.7	34.0	34.5	34.4	21.2	34.8	35.0	36.1	22.2	30.5	31.5	32.2
Rib roast	do	20.4	27.1	27.3	28.0	18.8	28.4	28.5	29.2	20.5	25.9	28.2	28.2
Chuck roast	do	15.9	19.3	20.8	20.3	16.6	24.2	24.4	25.3	17.3	20.3	23.8	23.9
Plate beef	do	12.2	15.3	16.2	16.1	11.6	14.4	14.5	14.8	10.3	12.5	14.2	13.9
Pork chops	do	20.0	37.2	30.0	29.1	20.0	41.5	30.2	33.0	19.3	38.5	31.5	32.2
Bacon, sliced	do	41.4	45.3	40.5	40.3	28.6	52.3	45.9	46.3	27.7	54.3	47.3	47.1
Ham, sliced	do	30.7	59.6	54.1	54.0	29.0	57.7	50.5	49.9	30.0	60.3	53.8	53.5
Lamb, leg of	do	21.2	41.0	41.2	38.7	20.5	41.9	42.8	41.8	16.5	36.4	37.4	36.5
Hens	do	20.0	31.9	30.6	28.4	20.6	35.8	30.8	31.3	19.2	33.1	31.1	31.8
Salmon, canned, red	do	-----	34.7	33.1	33.6	-----	33.8	33.0	32.6	-----	39.3	35.0	35.0
Milk, fresh	Quart	10.0	15.0	15.0	15.0	7.0	11.0	11.0	11.0	7.0	11.0	11.0	11.0
Milk, evaporated	15-16 oz. can	-----	11.2	11.3	11.6	-----	11.2	11.2	11.2	-----	11.6	11.6	11.7
Butter	Pound	36.9	49.3	51.2	50.9	31.3	46.2	47.9	48.0	31.0	46.3	47.9	46.9
Oleomargarine (all butter substitutes)	do	-----	27.3	25.1	24.5	-----	27.3	26.4	26.4	-----	28.2	25.4	25.0
Cheese	do	20.0	32.1	33.4	33.8	21.0	33.0	35.0	34.9	20.8	32.9	35.2	35.9
Lard	do	15.9	21.0	16.1	16.0	15.6	23.6	19.0	19.0	15.4	21.8	17.9	18.1
Vegetable lard substitute	do	-----	23.6	20.0	20.2	-----	26.6	26.5	26.5	-----	27.3	26.7	27.1
Eggs, strictly fresh	Dozen	24.0	39.0	29.9	32.1	23.8	35.2	27.3	30.2	22.7	35.4	26.9	29.5
Bread	Pound	6.0	9.7	9.5	9.5	5.6	9.0	9.0	9.0	5.6	9.8	9.0	9.6
Flour	do	3.5	6.6	5.9	6.0	3.1	5.6	5.1	5.1	3.0	5.8	5.2	5.2
Corn meal	do	2.0	3.8	3.8	3.9	3.0	5.5	5.7	5.7	2.4	5.6	5.4	5.4
Rolled oats	do	-----	9.4	9.1	9.1	-----	8.6	8.4	8.4	-----	8.4	8.1	8.1
Corn flakes	8-oz. pkg.	-----	11.1	9.8	9.8	-----	10.3	9.3	9.4	-----	10.7	10.6	10.4
Wheat cereal	28-oz. pkg.	-----	25.7	25.7	26.0	-----	24.5	24.6	24.3	-----	25.3	25.6	25.6
Macaroni	Pound	-----	19.3	18.7	18.9	-----	18.0	17.7	17.9	-----	19.3	19.1	18.9
Rice	do	8.0	10.7	9.0	8.3	9.0	11.9	10.5	10.7	9.1	12.1	10.5	10.5
Beans, navy	do	-----	9.6	8.9	9.1	-----	8.2	8.3	8.3	-----	9.1	9.3	9.3
Potatoes	do	1.9	4.9	6.6	5.0	2.0	3.8	5.5	3.6	1.7	3.3	5.5	4.0
Onions	do	-----	5.6	6.5	6.3	-----	7.0	9.5	8.5	-----	7.3	9.1	9.6
Cabbage	do	-----	5.0	7.8	4.8	-----	5.8	10.9	5.8	-----	5.1	11.4	5.6
Beans, baked	No. 2 can	-----	11.8	11.3	11.3	-----	11.1	11.0	11.0	-----	12.1	11.8	12.2
Corn, canned	do	-----	16.9	14.3	14.6	-----	15.6	15.4	15.2	-----	15.4	13.6	13.5
Peas, canned	do	-----	17.7	15.1	15.3	-----	16.6	15.2	15.1	-----	15.1	13.8	14.1
Tomatoes, canned	do	-----	10.8	9.8	9.8	-----	13.3	13.2	13.3	-----	13.4	13.3	13.4
Sugar, granulated	Pound	5.7	7.0	7.2	7.3	5.5	6.6	7.1	7.1	5.6	7.3	7.6	7.6
Tea	do	63.8	96.7	99.5	98.8	50.0	71.2	70.8	70.6	45.0	60.5	60.3	60.5
Coffee	do	27.5	51.3	47.6	47.3	27.5	47.3	42.5	42.4	30.8	53.8	50.7	50.3
Prunes	do	-----	17.6	14.0	13.8	-----	17.1	15.4	15.4	-----	16.9	15.6	15.6
Raisins	do	-----	15.4	14.5	14.6	-----	14.8	14.6	14.6	-----	15.1	15.1	15.0
Bananas	Dozen	-----	[2] 9.4	[2] 8.6	[2] 8.3	-----	[2] 9.6	[2] 9.4	[2] 9.3	-----	[2] 10.9	[2] 11.3	[2] 10.8
Oranges	do	-----	45.8	42.2	39.1	-----	49.2	48.7	49.0	-----	47.9	45.3	48.7

[1] Whole

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Mobile, Ala.			Newark, N. J.				New Haven, Conn.				New Orleans, La.				New York, N. Y.			
July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
			1913	1926			1913	1926			1913	1926			1913	1926		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
34.5	35.0	35.0	28.4	46.6	47.0	48.8	33.2	54.0	56.6	58.3	22.5	36.0	36.3	37.0	27.0	46.0	46.5	49.1
33.6	34.5	34.1	28.0	43.6	44.4	46.3	30.0	43.9	44.8	46.3	19.5	30.8	32.1	32.9	26.1	44.3	44.9	46.4
28.2	28.6	29.5	21.2	35.5	35.4	38.1	24.8	35.5	37.9	38.8	19.4	30.0	30.8	31.2	22.6	38.9	39.6	40.8
22.5	22.5	22.7	18.0	24.5	24.7	25.8	20.0	26.6	27.6	28.8	14.5	21.2	21.5	21.8	16.4	24.4	25.5	26.9
17.3	18.2	17.7	13.5	12.8	12.9	14.2	-----	15.8	16.1	16.7	11.3	16.4	17.5	17.7	14.9	20.0	20.1	20.8
41.4	37.7	36.4	22.8	41.8	35.4	36.6	22.8	41.0	35.5	35.1	23.1	39.6	34.5	35.2	22.6	44.7	38.8	39.2
51.9	47.3	47.3	25.8	49.4	45.3	46.0	29.3	53.2	47.5	46.2	31.3	51.1	48.0	47.0	26.4	53.0	47.7	47.4
57.9	51.9	50.7	22.0	59.6	53.9	54.3	34.0	65.4	59.8	58.9	30.0	57.5	51.8	51.1	30.0	66.1	59.9	58.7
40.0	40.6	41.4	21.2	40.6	42.1	41.6	21.4	42.4	42.8	42.3	21.3	39.4	40.4	40.1	18.1	38.1	40.9	40.6
38.2	35.6	34.0	24.0	40.6	37.6	37.1	24.0	43.8	40.9	40.8	19.3	37.4	35.3	34.8	22.6	41.9	39.3	38.2
41.0	31.2	31.3	-----	37.1	30.0	29.4	-----	34.2	31.0	31.0	-----	39.0	36.9	36.9	-----	36.3	30.4	30.6
17.8	17.8	17.8	9.0	15.0	15.0	15.0	9.0	15.0	16.0	16.0	9.3	14.0	14.0	14.0	9.0	15.0	15.0	15.0
11.7	11.7	11.7	-----	11.2	11.2	11.3	-----	11.9	12.0	12.0	-----	11.0	11.3	11.3	-----	11.1	11.1	11.1
54.4	54.1	52.9	35.6	51.2	52.7	53.4	33.8	50.5	52.4	52.0	34.1	50.4	51.9	51.8	34.4	50.7	53.0	52.9
31.6	29.1	28.6	-----	30.6	30.4	29.8	-----	31.6	30.3	29.8	-----	30.5	28.7	28.8	-----	30.2	28.7	27.9
35.1	35.6	35.2	24.2	39.8	39.7	39.9	22.0	37.7	39.4	39.0	22.0	33.8	37.4	36.8	19.4	38.1	38.6	38.6
23.6	19.2	19.1	16.0	22.5	19.2	19.3	15.7	23.3	18.4	18.1	15.1	22.0	19.1	19.2	16.2	23.4	19.9	19.9
22.6	20.4	20.4	-----	25.8	25.7	25.5	-----	25.6	25.6	25.4	-----	23.1	19.0	18.8	-----	26.0	26.1	26.0
49.7	29.6	38.4	38.2	50.8	41.2	44.6	39.0	54.4	45.3	51.9	27.6	40.9	32.4	36.4	35.9	51.2	46.0	47.2
9.6	10.1	10.1	5.6	9.3	9.6	9.5	6.0	9.2	9.2	9.2	5.1	8.9	8.7	8.8	6.4	9.6	9.7	9.7
6.6	6.1	6.1	3.7	6.2	5.6	5.6	3.3	6.1	5.5	5.6	3.9	7.4	6.7	6.7	3.3	6.1	5.6	5.7
3.9	4.0	4.1	3.6	5.6	6.5	6.5	3.2	6.9	6.9	7.1	2.7	4.0	4.1	4.3	3.4	6.3	6.5	6.4
8.7	8.3	8.3	-----	8.5	8.3	8.4	-----	9.4	9.1	9.3	-----	9.0	9.0	9.0	-----	8.5	8.7	8.7
11.3	9.7	9.6	-----	9.9	9.5	9.3	-----	10.9	10.1	10.1	-----	10.4	9.8	9.9	-----	10.0	9.4	9.1
25.5	24.4	24.4	-----	24.1	24.1	24.1	-----	24.6	24.7	24.8	-----	24.7	24.7	24.7	-----	24.1	24.0	24.0
21.1	20.9	20.9	-----	21.1	20.9	20.9	-----	22.3	22.1	22.2	-----	9.6	10.7	10.5	-----	20.8	20.9	20.9
11.6	9.8	9.5	9.0	11.3	10.5	10.5	9.3	11.8	10.8	10.9	7.4	10.2	9.9	9.9	8.0	10.7	9.8	9.6
8.8	8.8	8.8	-----	9.8	9.7	9.7	-----	9.7	9.5	9.5	-----	8.5	8.2	8.4	-----	10.2	10.2	10.0
5.1	6.6	6.0	2.6	3.8	5.6	3.6	2.1	3.9	5.7	3.6	2.0	4.2	6.3	5.0	2.5	4.0	5.4	3.7
5.5	7.5	6.8	-----	7.0	9.3	7.6	-----	7.8	9.8	9.1	-----	3.8	5.1	5.1	-----	7.1	9.1	7.3
5.3	6.9	6.6	-----	5.3	8.7	5.7	-----	6.2	10.6	5.7	-----	4.5	7.5	4.8	-----	5.6	9.3	4.4
10.7	10.8	10.6	-----	10.7	10.7	10.8	-----	11.4	11.1	11.1	-----	10.9	10.8	10.6	-----	11.0	10.6	10.5
17.3	15.9	16.1	-----	16.4	15.0	15.0	-----	18.5	18.7	18.6	-----	14.1	15.3	15.2	-----	14.5	13.8	13.8
16.4	15.9	15.7	-----	17.4	15.9	15.3	-----	19.6	19.0	19.2	-----	17.2	16.9	16.6	-----	15.3	14.8	14.7
11.1	19.8	10.8	-----	10.9	11.5	11.3	-----	12.9	12.9	13.2	-----	10.0	11.1	10.8	-----	10.4	11.5	11.4
7.1	7.3	7.4	5.3	6.3	6.9	6.9	5.3	6.7	7.3	7.2	5.2	6.2	6.9	6.9	4.9	6.1	6.5	6.7
80.5	77.3	77.8	53.8	63.5	62.8	62.8	55.0	60.1	57.4	57.4	62.1	82.2	78.1	79.1	43.3	64.9	66.3	66.3
50.3	48.1	47.4	29.3	50.3	47.4	46.9	33.8	52.9	49.7	49.0	26.7	36.1	35.6	35.6	27.5	47.5	44.6	44.2
17.8	16.2	17.2	-----	15.8	14.5	14.5	-----	16.3	15.7	15.7	-----	17.8	17.3	16.7	-----	15.5	13.6	14.1
14.6	14.3	14.4	-----	14.3	14.3	14.3	-----	13.9	14.2	14.1	-----	14.1	13.8	13.9	-----	15.0	14.0	14.1
23.0	23.9	22.8	-----	36.9	36.7	37.5	-----	34.8	33.6	34.5	-----	15.0	17.1	15.7	-----	38.1	36.6	35.6
49.1	50.5	47.1	-----	53.2	50.8	51.7	-----	51.7	53.7	56.1	-----	48.3	51.3	53.8	-----	57.4	56.6	58.1

[1] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Norfolk, Va.			Omaha, Nebr.				Peoria, Ill.		
		July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15, 1926	June 15, 1927	July 15, 1927
					1913	1926					
		Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
Sirloin steak	Pound	40.9	40.9	41.8	25.2	38.2	37.7	39.5	35.2	36.1	36.5
Round steak	do	34.6	34.9	36.8	22.0	35.5	35.5	37.6	34.2	34.8	34.6
Rib roast	do	32.2	32.3	33.4	18.0	26.6	26.5	27.2	25.3	25.3	25.7
Chuck roast	do	22.7	23.5	24.3	16.2	21.8	22.3	22.9	21.1	21.8	21.8
Plate beef	do	15.8	15.7	15.9	11.1	12.6	13.3	13.2	14.0	14.6	14.4
Pork chops	do	39.8	35.7	35.2	19.9	39.4	33.6	33.5	36.7	31.7	31.5
Bacon, sliced	do	49.0	44.4	44.1	28.0	55.9	50.2	50.0	53.0	50.0	50.8
Ham, sliced	do	52.1	49.4	48.0	29.0	61.8	56.3	54.1	58.8	53.3	54.2
Lamb, leg of	do	40.3	43.1	42.0	17.8	37.9	38.8	38.7	38.1	41.9	41.3
Hens	do	39.8	37.1	36.7	17.5	33.8	31.0	30.0	35.9	34.3	33.6
Salmon, canned, red	do	38.3	33.9	33.9	.....	39.2	34.8	34.5	39.5	33.1	33.5
Milk, fresh	Quart	17.5	17.5	17.5	7.9	10.8	10.3	10.3	11.7	13.0	13.0
Milk, evaporated	15-16 oz. can	11.1	11.6	11.8	.....	11.8	11.8	11.8	11.5	11.3	11.4
Butter	Pound	53.4	56.2	54.7	32.8	46.9	50.6	49.4	46.8	49.0	47.3
Oleomargarine (all butter substitutes).	do	29.5	28.7	27.7	.....	29.6	26.1	26.1	29.9	27.9	27.9
Cheese	do	32.4	35.1	35.0	22.5	34.2	36.1	36.4	34.9	36.0	36.4
Lard	do	21.6	18.6	18.8	17.6	24.6	20.5	20.5	22.7	19.2	18.7
Vegetable lard substitute	do	22.7	22.8	21.8	.....	27.6	27.4	26.0	27.3	27.8	27.8
Eggs, strictly fresh	Dozen	41.6	33.2	34.7	23.3	34.7	26.9	28.7	33.8	25.5	29.2
Bread	Pound	9.9	9.9	9.9	5.2	10.2	10.1	9.8	10.1	10.0	10.0
Flour	do	6.1	5.6	5.6	2.8	5.2	4.6	4.6	6.0	5.3	5.2
Corn meal	do	4.4	4.5	4.6	2.3	4.9	4.6	4.7	4.8	4.9	4.8
Rolled oats	do	8.4	8.8	8.8	.....	10.3	10.2	10.1	9.0	8.9	8.9
Corn flakes	8-oz. pkg	10.2	9.7	9.6	.....	12.4	10.9	10.5	11.8	10.2	10.2
Wheat cereal	28-oz. pkg	23.9	25.2	25.0	.....	28.3	28.0	28.0	25.4	26.3	26.3
Macaroni	Pound	19.1	19.1	19.1	.....	21.1	21.2	21.3	20.2	18.6	18.6
Rice	do	11.8	11.6	11.7	8.5	11.5	11.3	11.1	11.9	11.4	11.4
Beans, navy	do	8.1	8.0	8.1	.....	9.7	10.0	10.1	8.8	8.7	8.9
Potatoes	do	3.9	6.2	3.8	1.8	3.8	6.5	3.7	4.0	6.2	4.2
Onions	do	7.1	8.1	7.4	.....	7.9	9.3	8.9	8.0	9.9	9.6
Cabbage	do	5.0	6.5	5.2	.....	4.1	11.7	3.8	4.4	13.2	6.2
Beans, baked	No. 2 can	9.9	9.7	9.8	.....	13.6	13.4	13.0	11.8	11.1	11.1
Corn, canned	do	15.8	15.0	14.9	.....	16.1	16.3	16.2	15.6	14.8	14.6
Peas, canned	do	19.5	19.1	19.2	.....	16.1	15.5	15.3	18.3	17.1	16.7
Tomatoes, canned	do	10.1	9.9	9.9	.....	13.4	13.1	13.1	13.8	12.3	12.2
Sugar, granulated	Pound	6.6	7.0	7.1	5.7	7.2	7.8	7.9	7.6	8.3	8.6
Tea	do	88.7	94.5	95.8	56.0	78.8	79.1	78.4	67.6	69.6	70.9
Coffee	do	50.0	47.8	47.8	30.0	57.6	53.6	53.5	51.8	48.0	47.5
Prunes	do	16.5	15.7	15.4	.....	17.9	16.4	16.5	20.4	18.0	18.0
Raisins	do	14.5	14.2	14.3	.....	15.8	15.6	15.3	15.4	14.3	14.5
Bananas	Dozen	34.2	34.1	33.2	.....	[1] 11.5	[1] 10.5	[1] 10.6	[1] 10.1	[1] 10.1	[1] 9.8
Oranges	do	53.2	56.7	55.0	.....	45.3	44.8	43.2	46.5	48.1	49.0

[1] The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Philadelphia, Pa.				Pittsburgh, Pa.				Portland, Me.			Portland, Oreg.				Providence, R. I.			
July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1917	July 15, 1927
1913	1926			1913	1926						1913	1926			1913	1926		
Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
32.0	56.1	57.7	60.8	27.5	48.5	47.6	49.0	[1] 63.0	[1] 62.9	[1] 66.1	23.5	29.5	31.2	31.4	[1] 39.6	[1] 72.7	[1] 73.3	[1] 74.9
27.5	42.7	44.0	47.1	24.8	39.6	40.1	41.3	47.7	48.4	49.2	21.4	26.9	28.6	28.7	31.0	50.3	50.3	52.1
22.7	37.5	37.9	38.8	21.8	34.6	34.7	35.0	30.7	31.2	31.8	19.5	25.1	26.4	25.9	24.2	38.3	39.1	40.5
18.2	25.4	27.0	28.3	16.8	24.6	26.7	27.0	21.8	22.0	22.5	16.4	18.1	20.0	19.6	18.8	28.6	29.7	31.6
12.7	12.6	13.3	13.8	12.4	12.3	13.5	13.5	16.7	18.5	18.6	13.6	12.9	14.4	14.1	-----	18.0	18.0	18.2
22.2	46.7	39.0	39.9	23.0	43.4	38.4	38.3	41.3	35.4	34.1	22.1	42.8	34.9	36.0	21.6	45.1	36.9	36.9
27.9	49.8	46.1	45.5	29.5	56.1	52.8	50.8	46.7	43.7	43.5	31.3	59.2	54.3	53.7	23.4	46.9	42.6	41.9
32.7	65.8	59.8	59.6	31.5	68.9	61.0	60.7	63.0	57.7	55.5	30.8	59.4	56.0	56.0	32.3	64.4	58.5	57.0
21.0	43.2	44.2	43.8	20.8	42.9	44.8	43.8	41.6	41.0	43.0	18.1	36.3	37.8	37.2	21.7	43.8	43.8	43.2
23.3	42.8	39.5	38.9	26.5	43.9	43.2	42.7	43.8	41.8	42.3	20.3	35.4	32.1	32.5	24.8	44.4	40.2	37.8
-----	37.6	27.8	27.5	-----	38.4	30.1	30.4	39.1	30.2	30.2	-----	36.7	33.7	32.6	-----	38.1	32.1	31.9
8.0	12.0	13.0	13.0	8.6	13.0	14.0	14.0	13.5	13.8	13.8	9.3	12.0	12.0	12.0	9.0	14.8	14.3	14.5
-----	11.5	11.6	11.6	-----	11.5	11.3	11.2	12.4	12.5	12.4	-----	10.3	10.7	10.9	-----	12.2	12.1	12.1
39.2	53.7	54.7	54.9	35.7	51.8	52.8	52.6	52.7	55.4	54.7	37.5	47.0	49.7	49.7	36.0	51.3	51.9	51.1
-----	30.3	28.3	28.3	-----	30.3	30.4	30.1	29.4	27.5	27.5	-----	30.4	28.9	28.9	-----	29.4	27.7	27.3
25.0	38.5	39.4	39.4	24.5	37.9	40.4	40.0	37.9	37.9	38.0	20.8	37.5	37.4	37.1	21.7	36.2	36.7	36.8
15.3	23.0	17.5	17.4	15.5	22.7	18.5	18.6	22.3	18.2	18.4	17.9	24.3	20.5	20.4	15.2	22.3	18.2	18.3
-----	25.7	25.7	25.7	-----	27.4	27.5	27.5	24.9	25.7	25.8	-----	28.7	28.7	28.9	-----	27.3	26.9	26.4
30.4	44.6	35.1	38.5	27.1	42.9	36.6	38.7	49.4	40.4	46.2	34.0	37.1	29.1	31.5	35.7	53.7	43.8	50.9
4.8	9.5	9.4	9.4	5.4	9.3	9.1	9.1	10.1	10.0	10.0	5.6	9.4	9.3	9.3	5.9	9.2	9.1	9.1
3.2	6.0	5.4	5.4	3.3	5.8	5.2	5.3	6.0	5.5	5.5	2.9	5.2	5.1	5.1	3.5	6.5	6.0	6.0
2.7	4.8	4.7	4.7	2.7	5.8	5.9	5.5	5.2	5.1	5.1	3.3	5.1	5.5	5.7	2.8	5.1	4.9	5.1
-----	8.6	8.6	8.7	-----	9.3	9.3	9.1	8.3	8.0	8.1	-----	10.2	10.5	10.6	-----	9.4	9.1	9.1
-----	10.0	9.6	9.5	-----	10.6	10.0	10.1	11.6	10.1	9.9	-----	11.3	10.1	9.4	-----	10.8	9.8	9.8
-----	24.4	24.7	24.4	-----	25.1	25.1	25.1	25.9	25.7	25.6	-----	26.6	26.7	26.6	-----	25.1	25.1	25.1
-----	20.8	20.5	20.3	-----	23.5	23.5	23.5	24.9	24.7	24.4	-----	17.8	17.5	18.4	-----	23.2	23.4	23.4
9.8	12.5	11.3	11.2	9.2	12.7	11.7	11.7	12.9	12.6	12.6	8.6	11.3	10.4	10.4	9.3	12.0	10.7	10.7
-----	8.9	9.0	9.1	-----	8.1	8.7	8.9	9.6	9.5	9.7	-----	9.9	10.2	11.3	-----	9.4	9.5	9.8
2.1	4.1	6.0	4.2	18.	3.6	6.0	3.8	3.5	5.2	3.6	1.2	3.0	4.4	4.2	2.0	3.9	5.5	3.5
-----	6.8	8.7	6.9	-----	7.6	9.4	8.6	7.5	9.0	8.0	-----	4.6	8.6	6.5	-----	7.2	9.1	8.2
-----	5.5	8.7	4.8	-----	5.7	10.6	6.8	6.3	10.6	6.1	-----	4.0	9.1	4.7	-----	4.7	10.2	5.0
-----	10.6	10.7	10.8	-----	12.9	12.3	12.3	15.3	14.3	14.4	-----	13.4	12.5	12.0	-----	11.3	11.5	11.4
-----	14.7	14.1	14.1	-----	16.6	15.8	15.6	16.1	14.4	14.2	-----	19.1	19.0	19.3	-----	17.5	17.1	16.3
-----	14.8	14.8	14.9	-----	17.0	16.7	16.8	18.6	17.8	17.5	-----	19.3	18.4	19.1	-----	19.3	18.3	18.4
-----	11.0	12.2	12.1	-----	11.6	12.1	12.5	12.3	12.6	12.8	-----	[3] 16.9	[3] 17.2	[3] 16.9	-----	13.8	13.2	13.0
5.0	6.5	6.7	6.7	5.5	7.1	7.6	7.5	6.9	7.3	7.3	6.3	7.1	7.5	7.3	5.1	6.7	7.2	7.1
54.0	73.2	67.7	68.2	58.0	84.8	83.7	83.9	62.6	62.2	62.2	55.0	76.6	76.9	77.3	48.3	61.5	61.2	60.9
25.0	45.6	39.5	39.7	30.0	50.9	47.4	47.2	53.6	49.9	49.6	35.0	52.7	50.3	51.1	30.0	54.2	49.8	48.7
-----	14.8	13.3	13.7	-----	18.5	16.7	16.7	15.7	14.5	14.5	-----	14.4	11.0	11.6	-----	16.4	14.4	14.5
-----	13.8	13.7	13.5	-----	14.6	14.2	14.3	13.6	13.5	13.6	-----	14.0	13.7	13.7	-----	14.2	14.1	14.2
-----	30.6	30.2	28.7	-----	39.4	37.7	38.0	[3] 10.8	[3] 10.7	[3] 10.7	-----	[3] 13.5	[3] 12.2	[3] 12.5	-----	33.7	31.3	30.8
-----	48.3	50.3	50.6	-----	51.0	52.9	54.0	55.3	55.1	57.3	-----	45.9	46.5	47.0	-----	56.3	63.1	58.7

[3] No. 2½ can.

[1] Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Richmond, Va.				Rochester, N.Y.			St. Louis, Mo.			
		July 15—		June 15, 1927	July 15, 1927	July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
		1913	1926						1913	1926		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	22.2	39.8	40.0	40.4	42.4	41.5	43.0	24.8	37.6	37.4	38.6
Round steak	do	19.6	35.1	35.6	35.8	35.2	34.7	35.5	22.9	36.0	36.6	39.8
Rib roast	do	19.3	31.8	32.5	32.2	30.1	30.9	31.7	18.3	30.4	30.3	30.7
Chuck roast	do	15.9	23.7	24.2	23.9	24.8	24.9	25.2	14.6	20.8	21.5	21.5
Plate beef	do	12.9	16.5	17.2	17.2	13.1	13.9	13.8	11.0	13.8	14.1	14.3
Pork chops	do	21.2	42.3	36.3	35.9	45.5	37.4	38.0	19.8	37.7	29.7	29.1
Bacon, sliced	do	26.6	48.3	44.3	43.2	47.3	42.3	41.2	27.8	48.9	42.5	42.2
Ham, sliced	do	26.0	49.6	46.4	45.6	61.1	55.6	53.7	27.3	58.3	51.0	50.0
Lamb, leg of	do	19.3	46.0	45.2	44.4	40.4	40.5	40.0	19.0	38.4	40.4	38.8
Hens	do	20.0	39.8	35.4	33.0	44.1	41.0	39.7	18.0	36.8	33.6	32.6
Salmon, canned, red	do		36.6	34.4	34.5	38.3	30.7	30.5		39.2	33.6	33.6
Milk, fresh	do	10.0	14.0	14.0	14.0	12.5	12.5	12.5	8.0	13.0	13.0	13.0
Milk, evaporated	15–16 oz. can		12.6	12.3	12.6	11.5	11.5	11.4		10.4	10.8	11.0
Butter	Pound	38.1	55.5	58.5	57.1	49.7	51.5	52.0	33.3	50.3	52.7	52.3
Oleomargarine (all butter substitutes)	do		31.9	31.4	31.4	31.0	29.3	28.8		28.0	26.9	26.9
Cheese	do	22.3	35.6	36.1	36.1	34.4	34.7	34.2	19.5	32.9	35.6	35.5
Lard	do	15.0	22.2	18.0	18.2	21.4	17.4	17.6	14.1	19.7	15.0	15.0
Vegetable lard substitute	do		25.8	25.9	25.5	24.9	24.4	25.8		26.1	25.9	25.8
Eggs, strictly fresh	Dozen	24.6	39.6	31.8	34.0	40.1	31.6	34.0	21.4	35.8	27.7	30.9
Bread	Pound	5.3	9.5	9.4	9.4	8.9	9.0	9.0	5.5	9.8	9.9	9.9
Flour	do	3.3	6.0	5.4	5.5	5.8	5.5	5.5	3.0	5.6	5.2	5.3
Corn meal	do	2.0	4.7	4.8	4.9	5.7	5.4	5.4	2.2	4.3	4.5	4.5
Rolled oats	do		9.1	8.6	8.6	9.4	9.2	9.2		8.8	8.4	8.4
Corn flakes	8-oz. pkg		11.2	9.8	9.6	10.3	9.5	9.5		10.1	9.2	8.8
Wheat cereal	28-oz. pkg		25.8	25.6	26.0	25.3	24.5	24.5		24.3	24.7	24.7
Macaroni	Pound		20.2	20.4	20.4	21.8	19.5	19.5		21.1	19.7	19.8
Rice	do	10.0	13.3	11.9	11.9	10.4	10.4	10.9	8.4	10.6	10.1	10.2
Beans, navy	do		9.1	8.8	9.0	9.0	8.7	8.9		7.7	8.3	8.3
Potatoes	do	1.7	4.7	6.8	3.9	3.6	5.8	3.5	1.9	4.3	6.6	4.5
Onions	do		7.5	9.0	8.3	7.0	8.3	7.5		5.7	7.7	7.1
Cabbage	do		4.3	5.3	3.7	5.8	9.8	7.0		3.6	9.6	4.9
Beans, baked	No. 2 can		10.1	10.1	10.1	10.5	10.5	10.2		10.6	10.4	10.1
Corn, canned	do		15.5	14.8	15.0	16.3	14.7	14.7		15.8	15.6	15.2
Peas, canned	do		20.4	19.3	19.1	18.4	16.9	16.9		16.5	15.0	15.0
Tomatoes, canned	do		10.1	10.5	10.6	13.8	13.1	13.1		11.5	11.5	11.3
Sugar, granulated	Pound	5.0	6.8	7.2	7.3	6.4	6.9	6.8	5.2	7.0	7.2	7.3
Tea	do	56.0	90.6	91.4	91.4	67.6	69.8	68.3	55.0	73.6	76.1	76.5
Coffee	do	26.8	49.4	46.6	45.6	47.1	42.9	41.4	24.3	48.1	46.0	45.6
Prunes	do		18.5	15.4	15.4	16.4	15.8	15.9		19.0	18.0	18.0
Raisins	do		14.6	14.3	14.2	13.9	14.6	14.6		14.9	14.1	14.3
Bananas	Dozen		37.3	37.1	36.7	38.0	35.0	35.0		33.2	31.5	31.2
Oranges	do		55.8	49.6	52.3	49.7	47.0	49.6		47.5	47.2	49.2

[1] No. 2½ can.

[2] Per pound.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

St. Paul, Minn.				Salt Lake City, Utah				San Francisco, Calif.				Savannah, Ga.			Scranton, Pa.			
July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927	July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
1913	1926			1913	1926			1913	1926						1913	1926		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
27.0	36.9	37.8	39.9	22.9	30.8	33.8	33.6	20.7	31.6	33.3	33.2	35.0	35.0	35.5	26.8	51.4	51.1	52.1
23.3	31.5	32.7	34.7	20.0	27.7	31.3	31.1	19.0	29.0	30.5	30.4	28.5	28.0	29.0	22.8	42.0	42.6	43.8
21.9	29.2	30.9	32.4	19.9	23.7	26.2	25.9	21.0	29.6	30.2	30.1	27.5	27.5	28.0	23.8	37.5	37.3	37.6
17.0	23.8	25.0	26.1	15.7	18.4	19.8	20.0	14.6	18.4	19.6	19.2	18.8	19.8	17.8	17.5	28.1	27.5	28.8
11.2	13.4	14.1	14.6	12.0	12.3	14.5	14.4	13.0	14.5	15.1	14.8	15.5	14.9	15.0	12.1	11.9	12.8	12.6
19.7	39.3	29.9	30.7	22.9	40.6	34.3	32.7	23.2	46.6	41.2	40.2	38.0	32.0	32.0	21.3	46.2	40.0	39.5
26.8	52.9	45.0	45.1	31.7	53.3	48.1	47.2	33.3	65.3	58.9	58.2	47.3	43.3	41.0	27.5	54.3	50.3	48.0
28.0	57.1	50.3	48.0	30.7	61.0	59.3	57.5	30.0	70.0	64.3	64.1	50.0	45.9	45.5	31.7	64.5	61.1	60.6
18.9	35.3	36.4	35.1	18.8	35.9	39.4	36.7	16.7	38.4	39.1	38.6	40.0	39.6	41.0	21.7	47.1	47.8	47.5
19.7	32.8	28.7	29.5	24.8	33.3	31.4	29.6	23.8	45.1	42.9	42.4	33.4	32.6	30.0	23.7	46.6	44.5	43.1
----	37.8	36.3	36.0	----	34.9	35.1	33.4	----	36.3	29.9	29.9	39.6	33.1	33.3	----	37.3	34.5	33.4
6.8	11.0	11.0	11.0	8.7	10.3	10.3	11.0	10.0	14.0	14.0	14.0	17.0	17.0	17.0	8.4	12.0	12.0	12.0
----	12.0	11.7	11.7	----	10.6	10.6	10.6	----	10.1	10.3	10.5	11.3	11.4	11.4	----	11.9	11.9	12.0
32.6	45.6	46.8	46.6	35.0	45.7	48.5	46.6	36.4	50.5	51.5	51.4	53.5	53.1	52.7	35.3	50.2	52.9	52.1
----	27.9	24.8	24.8	----	29.6	29.1	28.9	----	31.3	30.2	30.3	34.8	32.7	32.1	----	29.4	28.0	28.4
21.0	32.9	35.8	35.8	23.3	29.4	30.7	30.7	19.0	37.9	38.8	38.7	34.3	35.8	35.1	18.0	35.2	35.9	35.7
15.0	22.4	18.4	18.4	19.3	25.3	21.5	21.0	18.8	24.8	23.0	23.0	23.0	18.8	18.4	15.6	23.1	19.1	18.9
----	27.3	28.1	28.1	----	29.5	29.2	29.4	----	28.2	28.4	28.3	21.2	16.6	16.7	----	26.3	26.1	26.1
22.9	35.7	26.7	29.7	29.4	34.1	27.5	28.6	31.4	43.6	32.7	33.9	43.3	33.2	38.0	28.0	44.4	35.9	38.7
5.9	10.2	10.0	10.0	5.9	9.9	9.7	9.7	5.9	9.8	9.5	9.5	10.5	10.8	10.7	5.6	10.4	10.7	10.7
3.0	6.0	5.3	5.4	2.6	4.7	4.2	4.2	3.4	5.9	5.8	5.8	7.0	6.6	6.6	3.6	6.5	5.9	5.9
2.5	5.3	5.2	5.2	3.4	5.5	5.5	5.6	3.4	6.3	6.5	6.5	3.6	3.7	3.8	----	7.5	8.0	7.8
----	9.9	10.2	10.2	----	8.9	8.8	8.8	----	9.5	9.8	9.8	8.6	8.5	8.6	----	10.0	9.7	9.7
----	11.9	10.9	10.8	----	12.3	11.3	10.6	----	10.8	10.1	10.0	10.1	9.9	9.6	----	11.0	10.2	10.1
----	26.6	26.4	26.4	----	25.5	25.5	25.5	----	25.4	25.4	25.3	24.5	24.3	24.3	----	25.8	25.1	25.1
----	18.7	18.7	18.7	----	20.4	19.9	20.0	----	15.8	15.6	15.6	18.1	18.3	18.2	----	23.5	22.9	22.9
10.0	12.2	10.6	10.7	8.2	11.4	9.2	9.2	8.5	12.1	11.5	11.3	10.7	9.8	9.9	8.5	11.7	11.0	11.1
----	9.3	9.5	9.6	----	9.6	9.1	9.3	----	9.6	9.9	10.0	10.4	9.6	9.3	----	11.3	10.6	10.6
1.4	3.5	5.1	3.7	1.6	2.4	6.6	3.7	1.9	3.7	5.5	4.7	5.1	6.4	4.6	2.0	3.9	5.6	3.7
----	7.8	10.1	8.5	----	7.5	8.4	7.6	----	4.1	7.7	5.5	7.5	8.6	8.1	----	7.6	9.3	7.6
----	4.1	12.8	3.3	----	3.7	9.8	4.1	----	----	----	----	5.5	6.0	5.9	----	6.6	9.6	5.1
----	13.8	13.6	13.6	----	13.9	13.8	13.3	----	13.7	12.7	13.0	12.5	12.2	12.4	----	11.0	11.3	11.3
----	15.2	14.3	14.3	----	15.5	14.2	14.6	----	18.6	17.7	17.9	16.3	15.2	14.8	----	17.4	16.6	16.6
----	16.1	15.3	15.3	----	15.9	15.5	15.7	----	[1]18.5	[1]17.9	[1]17.8	16.7	16.8	16.9	----	17.4	17.4	17.4
----	14.1	14.3	14.3	----	14.3	13.5	13.6	----	15.5	15.0	15.0	10.1	10.1	10.1	----	11.9	12.7	12.6
5.6	7.4	7.5	7.5	5.9	7.7	8.1	8.0	5.4	6.8	7.0	7.0	6.7	7.1	7.2	5.6	6.7	7.2	7.2
45.0	69.9	68.1	67.4	65.7	88.3	86.5	86.5	50.0	68.8	71.3	71.8	81.6	79.8	81.7	52.5	65.5	71.2	71.2
30.9	52.8	51.5	50.8	35.8	57.1	55.1	54.9	32.0	54.3	52.0	51.9	48.7	45.2	45.3	31.3	52.4	50.1	49.1
----	17.3	15.5	15.7	----	15.3	14.6	14.4	----	15.4	13.0	13.0	16.2	14.6	14.8	----	18.3	16.2	16.0
----	15.7	15.6	15.6	----	14.6	13.6	13.5	----	13.3	13.2	13.1	14.9	14.5	14.7	----	15.1	14.7	14.7
----	[2]11.4	[2]10.5	[2]10.6	----	[2]14.8	[2]11.2	[2]12.4	----	31.7	30.6	31.9	32.3	30.0	30.4	----	33.7	33.2	33.2
----	49.9	47.0	48.9	----	42.8	44.7	45.1	----	48.3	47.8	50.0	49.3	43.5	46.9	----	52.4	56.7	55.5

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Article	Unit	Seattle, Wash.				Springfield, Ill.			Washington, D. C.			
		July 15—		June 15, 1927	July 15, 1927	July 15, 1926	June 15, 1927	July 15, 1927	July 15—		June 15, 1927	July 15, 1927
		1913	1926						1913	1926		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	24.4	34.1	35.0	34.7	36.1	37.5	37.9	28.1	47.8	46.6	49.4
Round steak	do	21.5	30.3	31.2	30.8	35.6	36.7	36.9	24.6	40.9	40.6	42.9
Rib roast	do	20.0	27.4	28.1	28.0	23.7	24.6	24.4	22.0	35.1	34.1	35.3
Chuck roast	do	16.2	19.4	20.6	20.3	21.9	22.1	22.8	17.9	24.7	24.8	26.9
Plate beef	do	13.0	14.5	15.9	15.4	13.6	14.0	13.8	12.4	13.3	13.8	13.9
Pork chops	do	23.6	45.9	36.8	38.3	37.1	30.4	30.0	21.9	45.2	37.6	37.4
Bacon, sliced	do	31.7	62.4	57.7	57.5	50.7	46.3	45.8	28.1	53.1	45.8	43.9
Ham, sliced	do	31.7	65.7	60.0	61.1	59.6	53.3	50.8	30.0	62.5	57.6	56.5
Lamb, leg of	do	19.6	37.4	37.4	36.6	41.8	43.3	41.7	21.4	44.8	44.4	42.1
Hens	do	23.8	34.7	33.6	31.9	35.7	34.2	32.5	22.6	44.4	39.7	38.6
Salmon, canned, red	do	-----	38.5	34.4	34.6	41.4	34.8	34.8	-----	38.3	31.4	31.2
Milk, fresh	Quart	8.5	13.0	12.0	12.0	12.5	12.5	14.3	8.0	14.0	15.0	15.0
Milk, evaporated	15–16 oz. can	-----	10.6	10.7	10.7	11.7	11.8	11.8	-----	12.0	11.9	12.0
Butter	Pound	35.5	49.6	50.9	51.0	48.4	50.7	49.0	36.6	53.5	54.4	53.8
Oleomargarine (all butter substitutes)	do	-----	30.7	28.3	28.2	30.4	28.2	28.0	-----	31.5	28.9	28.5
Cheese	do	21.7	35.7	34.9	34.7	35.4	36.8	36.6	23.8	38.5	39.9	39.1
Lard	do	17.8	24.2	20.6	20.3	22.8	18.3	18.1	15.0	23.3	17.5	17.5
Vegetable lard substitute	do	-----	27.8	27.6	27.3	28.0	27.5	27.3	-----	25.5	24.6	24.5
Eggs, strictly fresh	Dozen	34.5	38.0	31.7	32.0	33.9	26.3	30.5	26.0	44.3	35.2	38.5
Bread	Pound	5.5	9.7	9.7	9.7	10.1	10.4	10.3	5.7	8.2	9.0	9.0
Flour	do	2.9	5.1	5.2	5.2	6.0	5.6	5.7	3.8	6.7	5.7	5.8
Corn meal	do	3.1	5.0	5.8	5.9	5.1	4.8	4.8	2.5	5.1	5.2	5.2
Rolled oats	do	-----	9.0	9.0	8.7	10.0	10.4	9.9	-----	9.2	9.4	9.3
Corn flakes	8-oz. pkg	-----	11.9	10.4	10.3	11.6	11.0	10.2	-----	10.6	9.6	9.5
Wheat cereal	28-oz. pkg	-----	27.4	27.2	27.7	27.0	27.5	27.3	-----	24.9	24.5	24.4
Macaroni	Pound	-----	18.3	18.2	18.2	19.1	18.9	18.9	-----	23.8	22.5	22.1
Rice	do	7.7	13.0	12.0	12.0	11.3	10.9	10.9	9.8	13.1	11.4	11.5
Beans, navy	do	-----	10.0	10.7	11.0	8.7	8.8	9.1	-----	8.7	8.7	8.8
Potatoes	do	1.5	3.2	5.2	4.8	4.5	6.2	4.8	1.8	4.0	5.4	3.8
Onions	do	-----	4.7	8.8	6.9	7.2	10.0	9.3	-----	7.4	8.8	7.3
Cabbage	do	-----	4.4	10.0	6.1	5.5	11.5	5.5	-----	5.5	6.8	4.2
Beans, baked	No. 2 can	-----	13.3	12.0	11.9	10.9	10.7	10.3	-----	10.6	10.0	10.1
Corn, canned	do	-----	19.0	16.9	17.3	15.6	14.7	14.5	-----	15.4	14.4	14.3
Peas, canned	do	-----	20.1	18.4	18.5	17.3	15.4	15.6	-----	16.7	15.9	16.2
Tomatoes, canned	do	-----	[1] 17.5	[1] 17.2	[1] 16.9	13.7	13.8	13.6	-----	10.3	10.1	10.1
Sugar, granulated	Pound	6.1	7.1	7.4	7.4	7.5	7.9	7.9	5.0	6.8	7.1	7.1
Tea	do	50.0	78.3	76.5	75.7	79.6	84.5	84.6	57.5	90.4	91.7	91.4
Coffee	do	28.0	52.2	49.1	49.1	53.1	49.8	49.3	28.8	48.8	42.2	42.8
Prunes	do	-----	15.8	13.7	14.0	17.4	15.4	15.9	-----	18.3	16.6	17.0
Raisins	do	-----	15.0	14.1	14.0	15.4	15.4	15.8	-----	14.9	14.3	14.4
Bananas	Dozen	-----	[2] 13.6	[2] 12.2	[2] 12.2	[2] 9.6	[2] 9.5	[2] 9.5	-----	34.9	31.3	30.9
Oranges	do	-----	46.0	45.2	45.7	49.9	44.9	45.2	-----	52.9	52.2	56.5

[1] No. 2½ can. [2] Per pound.

Comparison of Retail Food Costs in 51 Cities

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food [3] in July, 1927, compared with the average cost in the year 1913, in July, 1926, and in June, 1927. For 12 other cities, comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau at different dates since 1913. These percentage changes are based

[3] For list of articles see note 5, p. 175.

on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.[4]

TABLE 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN JULY, 1927, COMPARED WITH THE COST IN JUNE, 1927, JULY, 1926, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percentage increase July, 1927, compared with 1913	Percentage decrease July, 1927, compared with—		City	Percentage increase July, 1927, compared with 1913	Percentage decrease July, 1927, compared with—	
		July, 1926	June, 1927			July, 1926	June, 1927
Atlanta	58.4	3.9	3.7	Minneapolis	53.4	2.2	3.8
Baltimore	56.5	3.9	3.6	Mobile		1.6	0.4
Birmingham	59.8	4.9	0.0	Newark	46.0	1.7	2.9
Boston	54.4	2.4	1.9	New Haven	54.1	0.8	3.0
Bridgeport		1.0	3.0	New Orleans	52.7	0.5	1.3
Buffalo	54.6	3.9	4.5	New York	55.5	2.0	3.2
Butte		0.2	0.3	Norfolk		2.5	3.4
Charleston, S. C	55.4	3.1	[1] 0.2	Omaha	48.2	4.5	7.2
Chicago	64.7	1.8	4.6	Peoria		0.9	5.0
Cincinnati	55.6	2.5	5.2	Philadelphia	56.2	1.7	2.8
Cleveland	52.4	2.6	5.0	Pittsburgh	54.8	0.9	4.0
Columbus		3.0	6.2	Portland, Me		1.4	2.5
Dallas	52.9	0.5	[1] 0.8	Portland, Oreg	39.5	[1] 1.6	0.8
Denver	39.8	1.4	5.5	Providence	53.1	3.4	3.0
Detroit	61.7	2.1	5.1	Richmond	58.1	5.1	4.4
Fall River	51.2	1.6	3.2	Rochester		2.9	4.3
Houston		4.0	0.8	St. Louis	56.9	1.9	4.3
Indianapolis	50.1	3.8	5.3	St. Paul		2.8	3.9
Jacksonville	48.3	6.6	1.5	Salt Lake City	33.2	[1] 1.2	6.2
Kansas City	45.4	6.0	6.9	San Francisco	49.2	0.7	1.7
Little Rock	45.2	4.2	0.6	Savannah		4.6	2.2
Los Angeles	39.7	2.7	2.6	Scranton	57.7	2.2	3.9
Louisville	47.3	4.4	6.2	Seattle	46.2	[1] 0.4	1.7
Manchester	52.1	2.0	1.0	Springfield, Ill		0.2	2.4
Memphis	44.0	4.8	2.7	Washington, D. C	57.8	4.4	1.8
Milwaukee	55.1	3.6	4.1				

[1] Increase.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of July 99.3 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 43 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Birmingham, Boston, Bridgeport, Buffalo, Butte, Charleston, S. C., Chicago, Cincinnati, Cleveland, Columbus, Dallas, Denver, Fall River, Indianapolis, Jacksonville, Kansas City, Little Rock, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New York, Norfolk, Peoria, Philadelphia, Portland, Me., Portland, Oreg., Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Savannah, Scranton, and Washington.

[4] The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

The following summary shows the promptness with which the merchants responded in July, 1927:

RETAIL PRICE REPORTS RECEIVED FOR JULY, 1927

Item	United States	Geographical division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received	99.3	99.7	100.0	99.0	99.0	99.0
Number of cities in each section from which every report was received	43	13	8	11	6	5

Retail Prices of Coal in the United States [a]

THE following table shows the average retail prices of coal on January 15 and July 15, 1913, July 15, 1926, and June 15 and July 15, 1927, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, JULY 15, 1926, AND JUNE 15 AND JULY 15, 1927

City, and kind of coal	1913		1926	1927	
	Jan. 15	July 15	July 15	June 15	July 15
United States:					
Pennsylvania anthracite—					
Stove—					
Average price	**$7.99**	**$7.46**	**$15.43**	**$15.06**	**$15.15**
Index (1913=100)	**103.4**	**96.6**	**199.7**	**194.9**	**196.1**
Chestnut—					
Average price	**$8.15**	**$7.68**	**$15.19**	**$14.70**	**$14.81**
Index (1913=100)	**103.0**	**97.0**	**191.9**	**185.7**	**187.1**
Bituminous—					
Average price	**$5.48**	**$5.39**	**$8.70**	**$8.89**	**$8.91**
Index (1913=100)	**100.8**	**99.2**	**160.1**	**163.6**	**163.9**
Atlanta, Ga.:					
Bituminous	$5.88	$4.83	$7.37	$7.37	$7.38
Baltimore, Md.:					
Pennsylvania anthracite—					
Stove	[1] 7.70	[1] 7.24	[1] 16.00	[1] 15.80	[1] 15.88
Chestnut	[1] 7.93	[1] 7.49	[1] 15.50	[1] 14.75	[1] 15.06
Bituminous			7.63	8.11	8.04
Birmingham, Ala.:					
Bituminous	4.22	4.01	7.28	7.10	7.13
Boston, Mass.:					
Pennsylvania anthracite—					
Stove	8.25	7.50	16.25	15.75	16.00
Chestnut	8.25	7.75	16.00	15.50	15.75

[1] Per ton of 2,240 pounds.

[a] Prices of coal were formerly secured semiannually and published in the March and September issues. Since June, 1920, these prices have been secured and published monthly.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, JULY 15, 1926, AND JUNE 15 AND JULY 15, 1927—Continued

City, and kind of coal	1913		1926	1927	
	Jan. 15	July 15	July 15	June 15	July 15
Bridgeport, Conn.:					
Pennsylvania anthracite—					
Stove			15.00	14.50	14.50
Chestnut			15.00	14.50	14.50
Buffalo, N. Y.:					
Pennsylvania anthracite—					
Stove	6.75	6.54	13.79	13.79	13.78
Chestnut	6.99	6.80	13.39	13.38	13.38
Butte, Mont.:					
Bituminous			11.04	10.95	10.94
Charleston, S. C.:					
Bituminous	[1] 6.75	[1] 6.75	11.00	11.00	11.00
Chicago, Ill.:					
Pennsylvania anthracite—					
Stove	8.00	7.80	16.88	16.50	16.70
Chestnut	8.25	8.05	16.63	16.00	16.20
Bituminous	4.97	4.65	8.27	9.12	9.09
Cincinnati, Ohio:					
Bituminous	3.50	3.38	6.57	7.07	7.03
Cleveland, Ohio:					
Pennsylvania anthracite—					
Stove	7.50	7.25	14.83	15.05	15.05
Chestnut	7.75	7.50	14.83	14.55	14.65
Bituminous	4.14	4.14	8.52	8.94	9.02
Columbus, Ohio:					
Bituminous			6.59	7.09	6.96
Dallas, Tex.:					
Arkansas anthracite—					
Egg			15.17	14.50	14.17
Bituminous	8.25	7.21	12.72	11.71	11.71
Denver, Colo.:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	8.88	9.00	15.75	15.75	15.90
Stove, 3 and 5 mixed	8.50	8.50	16.00	15.75	15.90
Bituminous	5.25	4.88	9.89	9.32	9.60
Detroit, Mich.:					
Pennsylvania anthracite—					
Stove	8.00	7.45	16.00	15.00	15.50
Chestnut	8.25	7.65	15.50	14.50	15.00
Bituminous	5.20	5.20	9.30	9.28	9.18
Fall River, Mass.:					
Pennsylvania anthracite—					
Stove	8.25	7.43	16.75	16.25	16.50
Chestnut	8.25	7.61	16.25	15.75	16.00
Houston, Tex.:					
Bituminous			11.00	11.60	11.40
Indianapolis, Ind.:					
Bituminous	3.81	3.70	6.73	6.96	7.00
Jacksonville, Fla.:					
Bituminous	7.50	7.00	12.00	12.00	12.00
Kansas City, Mo.:					
Arkansas anthracite—					
Furnace			13.70	12.90	13.20
Stove No. 4			15.17	14.67	15.17
Bituminous	4.39	3.94	7.43	7.60	7.65
Little Rock, Ark.:					
Arkansas anthracite—					
Egg			13.00	14.00	14.00
Bituminous	6.00	5.33	9.41	10.50	9.85
Los Angeles, Calif.:					
Bituminous	13.52	12.50	15.31	15.25	14.75
Louisville, Ky.:					
Bituminous	4.20	4.00	6.27	6.58	6.58
Manchester, N. H.:					
Pennsylvania anthracite—					
Stove	10.00	8.50	17.00	17.08	17.00
Chestnut	10.00	8.50	17.00	16.83	16.75
Memphis, Tenn.:					
Bituminous	[2] 4.34	[2] 4.22	6.91	8.75	8.36
Milwaukee, Wis.:					
Pennsylvania anthracite—					
Stove	8.00	7.85	16.80	16.40	16.40
Chestnut	8.25	8.10	16.65	15.95	15.95
Bituminous	6.25	5.71	8.90	9.32	9.42

[1] Per ton of 2,240 pounds.

[2] Per 10-barrel lot (1,800 pounds).

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, JULY 15, 1926, AND JUNE 15 AND JULY 15, 1927—Continued

City, and kind of coal	1913		1926	1927	
	Jan. 15	July 15	July 15	June 15	July 15
Minneapolis, Minn.:					
Pennsylvania anthracite—					
Stove	$9.25	$9.05	$18.10	$17.91	$17.90
Chestnut	9.50	9.30	17.95	17.45	17.45
Bituminous	5.89	5.79	11.02	11.06	11.16
Mobile, Ala.:					
Bituminous	----	----	9.42	9.35	9.31
Newark, N. J.:					
Pennsylvania anthracite—					
Stove	6.50	6.25	14.00	13.80	13.70
Chestnut	6.75	6.50	13.50	13.25	13.20
New Haven, Conn.:					
Pennsylvania anthracite—					
Stove	7.50	6.25	15.05	14.55	14.65
Chestnut	7.50	6.25	15.05	14.55	14.65
New Orleans, La.:					
Bituminous	[2] 6.06	[2] 6.06	9.18	9.32	9.39
New York, N. Y.:					
Pennsylvania anthracite—					
Stove	7.07	6.66	14.75	14.08	14.08
Chestnut	7.14	6.80	14.50	13.79	13.79
Norfolk, Va.:					
Pennsylvania anthracite—					
Stove	----	----	15.50	14.50	14.50
Chestnut	----	----	15.50	14.50	14.50
Bituminous	----	----	8.52	8.57	8.55
Omaha, Nebr.:					
Bituminous	6.63	6.13	9.48	9.68	9.68
Peoria, Ill.:					
Bituminous	----	----	6.80	6.99	6.97
Philadelphia, Pa.:					
Pennsylvania anthracite—					
Stove	[1] 7.16	[1] 6.89	[1] 15.86	[1] 14.89	[1] 14.96
Chestnut	[1] 7.38	[1] 7.14	[1] 15.54	[1] 14.39	[1] 14.46
Pittsburgh, Pa.:					
Pennsylvania anthracite—					
Chestnut	[1] 8.00	[1] 7.44	15.00	14.88	15.00
Bituminous	[3] 3.16	[3] 3.18	5.59	5.85	5.72
Portland, Me.:					
Pennsylvania anthracite—					
Stove	----	----	16.56	16.32	16.56
Chestnut	----	----	16.56	16.32	16.56
Portland, Oreg.:					
Bituminous	9.79	9.66	12.04	12.61	12.98
Providence, R. I.:					
Pennsylvania anthracite—					
Stove	[4] 8.25	[4] 7.50	[4] 16.25	[4] 15.75	[4] 16.00
Chestnut	[4] 8.25	[4] 7.75	[4] 16.00	[4] 15.50	[4] 15.75
Richmond, Va.:					
Pennsylvania anthracite—					
Stove	8.00	7.25	15.75	15.00	15.50
Chestnut	8.00	7.25	15.75	15.00	15.50
Bituminous	5.50	4.94	9.04	9.21	9.03
Rochester, N. Y.:					
Pennsylvania anthracite—					
Stove	----	----	14.60	14.35	14.35
Chestnut	----	----	14.15	13.90	13.90
St. Louis, Mo.:					
Pennsylvania anthracite—					
Stove	8.44	7.74	16.75	16.65	16.65
Chestnut	8.68	7.99	16.50	16.20	16.25
Bituminous	3.36	3.04	6.04	7.12	7.16
St. Paul, Minn.:					
Pennsylvania anthracite—					
Stove	9.20	9.05	18.10	17.90	17.85
Chestnut	9.45	9.30	17.95	17.45	17.45
Bituminous	6.07	6.04	11.22	11.23	11.29
Salt Lake City, Utah:					
Colorado anthracite—					
Furnace, 1 and 2 mixed	11.00	11.50	18.00	18.00	18.00
Stove, 3 and 5 mixed	11.00	11.50	18.00	18.00	18.00
Bituminous	5.64	5.46	6.49	7.27	7.29

[1] Per ton of 2,240 pounds.
[2] Per 10-barrel lot (1,800 pounds.
[3] Per 25-bushel lot (1,900 pounds).
[4] The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, JULY 15, 1920, AND JUNE 15, AND JULY 15, 1927—Continued

City and kind of coal	1913		1920	1927	
	Jan. 15	July 15	July 15	June 15	July 15
San Francisco, Calif.:					
New Mexico anthracite—					
Cerillos egg	$17.00	$17.00	$25.00	$25.00	$25.00
Colorado anthracite—					
Egg	17.00	17.00	24.50	24.50	24.50
Bituminous	12.00	12.00	16.22	15.60	15.50
Savannah, Ga.:					
Bituminous			[2] 10.88	[2] 10.63	[2] 10.63
Scranton, Pa.:					
Pennsylvania anthracite—					
Stove	4.25	4.31	10.92	10.47	10.48
Chestnut	4.50	4.56	10.67	10.22	10.23
Seattle, Wash.:					
Bituminous	7.63	7.70	9.05	10.14	10.07
Springfield, Ill.:					
Bituminous			4.33	4.44	4.44
Washington, D. C.:					
Pennsylvania anthracite—					
Stove	[1] 7.50	[1] 7.38	[1] 15.53	[1] 15.25	[1] 15.25
Chestnut	[1] 7.65	[1] 7.53	[1] 15.22	[1] 14.73	[1] 14.73
Bituminous—					
Prepared sizes, low volatile			[1] 10.92	[1] 10.67	[1] 10.67
Prepared sizes, high volatile			[1] 8.75	[1] 8.75	[1] 9.00
Run of mine, mixed			[1] 7.75	[1] 7.78	[1] 7.78

[1] Per ton of 2,240 pounds.
[2] All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above prices.

Index Numbers of Wholesale Prices in July, 1927

[NOTE.—The Bureau of Labor Statistics announces that a revision of its index numbers of wholesale prices has been completed for the period since 1923. This revision consists of (1) the addition of a number of important articles to the list of commodities, (2) a shift of the price base to the last completed year, 1926, and (3) the substitution of more recent weighting data for the figures previously employed. In addition, there has been a slight rearrangement of commodities in certain groups, while the group of "clothing materials" has been superseded by the two groups of "textile products" and "hides and leather products." The revised results will appear in the October issue of the Labor Review. In the meantime full details may be had on application to the bureau]

A SLIGHT reaction from the recent downward trend of wholesale prices is shown for July by information collected in representative markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's weighted index number on the 1913 base registered 144.6 for July compared with 143.7 for June, an increase of nearly two-thirds of 1 per cent. Compared with July, 1926, however, with an index number of 150.7, there was a decrease of 4 per cent.

An increase of 1⅔ per cent took place in the group of farm products, due to appreciable advances in cattle, hogs, lambs, hides, cotton, eggs, tobacco, and wool. Grains, hay, and potatoes, on the other hand, were cheaper than in June. Clothing materials and miscellaneous commodities averaged higher than in the month before, while small decreases are shown for foods, fuels, metals, building materials, and chemicals and drugs. Practically no change was reported for the group of house-furnishing goods.

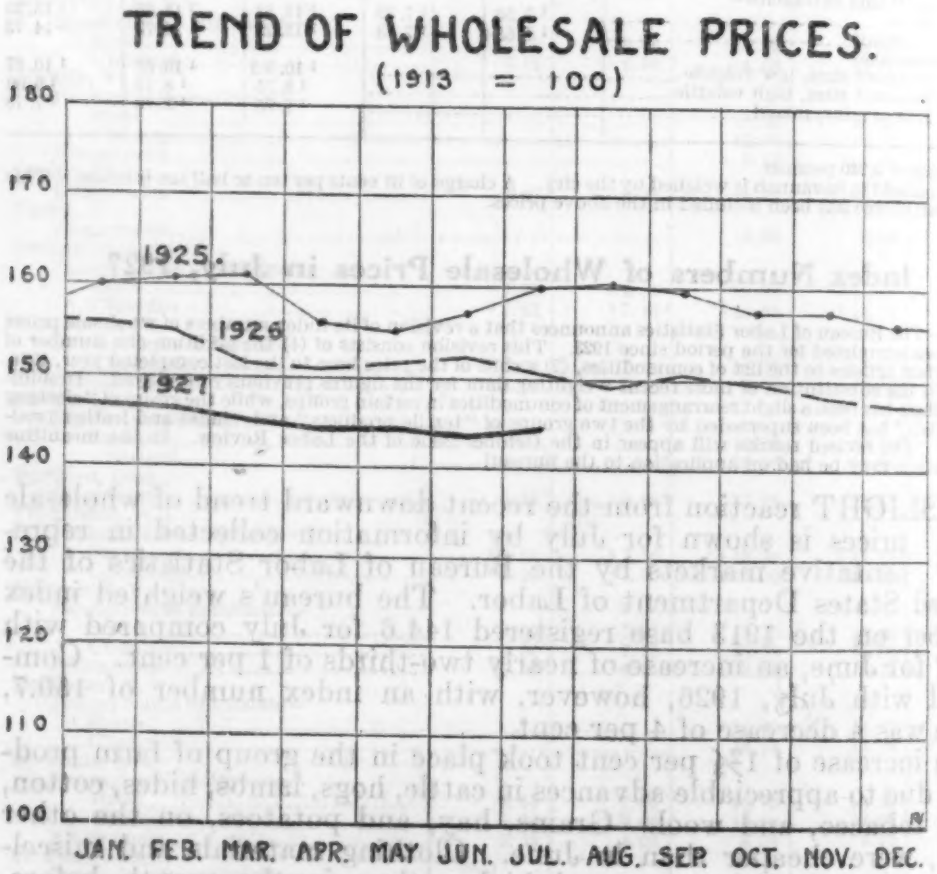
Of the 404 commodities or price series for which comparable information for June and July was collected, increases are shown in 125 instances and decreases in 116 instances. In 163 instances no change in price was reported.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES

[1913=100.0]

Commodity group	July, 1926	1927	
		June	July
Farm products	140.8	138.2	140.5
Foods	153.6	146.4	145.5
Clothing materials	173.3	169.6	170.8
Fuels	177.0	158.7	158.5
Metals and metal products	126.2	119.6	118.9
Building materials	171.5	164.3	162.4
Chemicals and drugs	130.9	121.8	121.2
Housefurnishing goods	161.1	157.3	157.4
Miscellaneous	122.5	120.5	121.1
All commodities	150.7	143.7	144.6
Raw materials [1]	152.7	146.7	149.0
Producers' goods [1]	127.3	119.9	119.8
Consumers' goods [1]	162.0	154.3	154.1

[1] Federal Reserve Board grouping.



Comparing prices in July with those of a year ago, as measured by changes in the index numbers, it is seen that decreases took place in all groups of commodities, ranging from 10½ per cent in the case of fuels to 1½ per cent in the case of clothing materials, and less than one-fourth of 1 per cent in the case of farm products.

Agricultural and Nonagricultural Commodities

THE figures in the following table furnish a comparison of wholesale price trends of agricultural and nonagricultural commodities during the period from January, 1925, to July, 1927, inclusive. These index numbers have been made by combining into two groups the weighted prices of all commodities included in the bureau's regular series of index numbers. Roughly speaking, all articles originating on American farms have been placed in the first group, while all remaining articles have been put in the second. The five-year period 1910–1914, instead of the year 1913, forms the base in this presentation.

INDEX NUMBERS OF WHOLESALE PRICES OF AGRICULTURAL AND NONAGRICULTURAL COMMODITIES, BY MONTHS, JANUARY, 1925, TO JULY, 1927

[1910–1914=100]

Year and month	1925		1926		1927	
	Agricultural	Nonagricultural	Agricultural	Nonagricultural	Agricultural	Nonagricultural
Average for year	158.4	165.3	146.5	160.8		
January	160.8	164.7	152.7	164.7	142.5	156.3
February	159.4	167.3	150.9	164.5	142.9	155.0
March	162.0	165.4	146.7	161.6	142.8	152.9
April	155.4	162.3	147.8	159.5	142.4	150.9
May	154.3	161.3	148.5	160.2	142.8	150.4
June	156.9	163.2	149.9	159.9	141.9	150.5
July	160.9	164.3	147.3	159.2	143.5	150.7
August	162.5	163.7	143.6	160.1		
September	161.5	163.3	145.6	160.6		
October	156.0	164.5	144.5	160.0		
November	154.9	165.9	140.5	161.0		
December	152.8	165.0	141.3	158.3		

Purchasing Power of the Dollar (Wholesale Prices), January, 1926, to July, 1927

IN THE following tables the monthly variations in the buying power of the dollar with respect to certain commodities and groups of commodities are shown for the period from January, 1926, to July, 1927. These have been computed from the index numbers of wholesale prices constructed each month by the Bureau of Labor Statistics. Comparable information for months prior to January, 1926, will be found in the March, 1926, issue of the Labor Review.

TABLE 1.—MONTHLY CHANGES IN BUYING POWER OF THE DOLLAR IN THE PURCHASE OF SPECIFIED GROUPS OF COMMODITIES, JANUARY, 1926, TO JULY, 1927

[1913=$1]

Year and month	Farm products	Foods	Clothing materials	Fuels	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1926—January	$0.659	$0.640	$0.539	$0.567	$0.776	$0.562	$0.751	$0.606	$0.739	$0.641
February	.667	.653	.544	.557	.779	.565	.756	.610	.752	.645
March	.694	.661	.554	.571	.783	.570	.760	.610	.779	.660
April	.690	.653	.566	.575	.791	.577	.767	.612	.791	.662
May	.693	.650	.568	.560	.799	.583	.765	.617	.802	.659
June	.696	.639	.571	.558	.799	.584	.763	.618	.816	.657
July	.710	.651	.577	.565	.792	.583	.764	.621	.816	.664
August	.725	.663	.572	.557	.790	.582	.765	.622	.821	.670
September	.709	.658	.571	.549	.787	.580	.765	.623	.831	.664
October	.717	.658	.583	.542	.789	.581	.773	.624	.843	.668
November	.743	.662	.589	.526	.791	.575	.778	.625	.850	.675
December	.741	.662	.593	.547	.796	.579	.780	.627	.849	.679
1927—January	.729	.668	.598	.556	.804	.589	.819	.635	.848	.681
February	.730	.675	.593	.565	.818	.596	.820	.635	.844	.683
March	.732	.680	.594	.594	.814	.600	.829	.635	.843	.688
April	.732	.679	.591	.623	.820	.606	.821	.635	.844	.693
May	.728	.676	.590	.632	.829	.604	.820	.635	.832	.694
June	.724	.683	.590	.630	.836	.609	.821	.636	.830	.696
July	.712	.687	.585	.631	.841	.616	.825	.635	.826	.692

TABLE 2.—MONTHLY CHANGES IN BUYING POWER OF THE DOLLAR IN THE PURCHASE OF SPECIFIED CLASSES OF BUILDING MATERIALS

[1913=$1]

Year and month	Lumber	Brick, common	Structural steel	Other building materials	All building materials
1926—January	$0.522	$0.487	$0.775	$0.602	$0.562
February	.523	.486	.775	.607	.565
March	.528	.486	.775	.614	.570
April	.537	.488	.775	.621	.577
May	.542	.488	.775	.628	.583
June	.545	.489	.816	.620	.584
July	.551	.489	.775	.612	.583
August	.553	.489	.775	.607	.582
September	.549	.488	.755	.611	.580
October	.550	.488	.755	.611	.581
November	.538	.489	.755	.614	.575
December	.542	.490	.755	.620	.579
1927—January	.551	.482	.755	.634	.589
February	.555	.481	.775	.644	.596
March	.559	.482	.795	.647	.600
April	.568	.483	.795	.651	.606
May	.564	.483	.795	.651	.604
June	.568	.484	.816	.656	.609
July	.574	.486	.851	.662	.616

TABLE 3.—WHOLESALE PRICES OF BITUMINOUS COAL AND COKE AND PURCHASING POWER OF THE DOLLAR

Year and month	Bituminous coal			Coke		
	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)
1926—January	$4.490	186.1	$0.537	$7.313	299.7	$0.334
February	4.490	186.1	.537	7.844	321.5	.311
March	3.990	165.4	.605	3.280	134.4	.744
April	3.990	165.4	.605	3.125	128.1	.781
May	3.990	165.4	.605	2.944	120.7	.829
June	3.990	165.4	.605	2.835	116.2	.861
July	3.990	165.4	.605	2.944	120.7	.829
August	3.990	165.4	.605	3.140	128.7	.777
September	4.240	175.8	.569	3.488	143.0	.699
October	4.890	202.7	.493	4.000	164.0	.610
November	5.490	227.6	.439	5.000	205.0	.488
December	5.490	227.6	.439	3.906	160.1	.625
1927—January	4.990	206.8	.484	3.875	158.8	.630
February	4.740	196.5	.509	3.700	151.7	.659
March	4.240	175.8	.569	3.650	149.6	.668
April	4.240	175.8	.569	3.494	143.2	.698
May	4.240	175.8	.569	2.940	120.5	.830
June	4.240	175.8	.569	3.169	129.9	.770
July	4.240	175.8	.569	3.044	124.8	.801

TABLE 4.—MONTHLY CHANGES IN BUYING POWER OF THE DOLLAR IN PURCHASE OF AGRICULTURAL AND NONAGRICULTURAL COMMODITIES

[1913=$1]

Year and month	Agricultural	Nonagricultural	Year and month	Agricultural	Nonagricultural
1926			1927		
January	$0.651	$0.635	January	$0.698	$0.669
February	.659	.636	February	.696	.674
March	.678	.647	March	.696	.684
April	.672	.655	April	.698	.693
May	.670	.653	May	.696	.695
June	.663	.654	June	.701	.694
July	.675	.657	July	.693	.694
August	.692	.653			
September	.683	.651			
October	.688	.653			
November	.708	.649			
December	.704	.661			

Wholesale Prices in the United States and in Foreign Countries, 1913 to June, 1927

IN THE following table the more important index numbers of wholesale prices in foreign countries and those of the United States Bureau of Labor Statistics have been brought together in order that the trend of prices in the several countries may be directly compared. In some instances the results here shown have been obtained by merely shifting the base to the year 1913; i. e., by dividing the index number for each year or month on the original base by the index number for 1913 on that base as published. In such cases, therefore, these results are to be regarded only as approximations of the correct index numbers. It should be understood, also, that the validity of the comparisons here made is affected by the wide difference in the number of commodities included in the different series of index numbers. For the United States and several other countries the index numbers are published to the fourth significant figure in order to show minor price variations.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES

[Index numbers expressed as percentages of the index number for 1913. See text explanation]

Country	United States	Canada	Belgium	Bulgaria	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Computing agency	Bureau of Labor Statistics	Dominion Bureau of Statistics	Ministry of Industry and Labor	Director General of Statistics	Central Bureau of Statistics (revised index)	Statistical Department	Central Bureau of Statistics	General Statistical Bureau	Federal Statistical Bureau	Riccardo Bachi
Commodities	404	[1] 238	128	38	135	118	135	45	38	[2] 107
Year and month										
1913	100.0	100.0	.....	100	.....	100	100	100	100.0	100
1914	98.1	102.3	[3] 100	121	[4] 100	.....	.....	102	.....	95
1915	100.8	109.9	.....	185	.....	.....	.....	140	.....	133
1916	126.8	131.6	.....	268	.....	.....	.....	188	.....	200
1917	177.2	178.5	.....	667	.....	.....	.....	262	.....	306
1918	194.3	199.0	.....	831	.....	.....	.....	339	.....	409
1919	206.4	209.2	.....	1166	.....	.....	.....	356	.....	366
1920	226.2	243.5	.....	2392	.....	.....	1183	509	.....	624
1921	146.9	171.8	.....	2006	.....	.....	1263	345	.....	577
1922	148.8	152.0	367	2472	1334	.....	1219	327	.....	552
1923	153.7	153.0	497	2525	977	.....	1095	419	.....	575
1924	149.7	155.2	573	2823	997	.....	1100	488	137.3	585
1925	158.7	160.3	558	.....	1008	210	1129	550	141.8	690
1926	151.0	156.2	744	.....	955	163	1088	703	134.4	708
1923										
January	155.8	151.4	434	2657	991	.....	1134	387	.....	575
April	158.7	156.9	480	2757	1012	.....	1096	415	.....	588
July	150.6	153.5	504	2408	949	.....	1080	407	.....	566
October	153.1	153.1	515	2263	960	.....	1077	421	.....	563
1924										
January	151.2	156.9	580	2711	974	.....	1071	494	.....	571
April	148.4	151.1	555	2798	1008	.....	1095	450	.....	579
July	147.0	153.9	566	2737	953	.....	1085	481	.....	567
October	151.9	157.0	555	2988	999	.....	1114	497	.....	602
1925										
January	160.0	165.5	559	3275	1045	243	1137	514	.....	653
February	160.6	164.7	551	3309	1048	240	1141	515	.....	660
March	161.0	161.6	546	3272	1034	236	1131	514	.....	659
April	156.2	156.5	538	3244	1020	230	1133	513	.....	658
May	155.2	158.8	537	3177	1006	227	1122	520	.....	660
June	157.4	158.6	552	3225	998	223	1129	543	.....	683
July	159.9	158.1	559	3041	1009	212	1118	557	.....	707
August	160.4	158.9	567	2870	993	197	1142	557	.....	731
September	159.7	156.2	577	2834	996	186	1133	556	.....	721
October	157.6	156.0	575	2823	989	179	1121	572	.....	716
November	157.7	161.2	569	2822	977	176	1118	605	.....	712
December	156.2	163.5	565	2913	977	176	1120	633	.....	715
1926										
January	156.0	163.8	560	2901	966	172	1094	634	135.8	708
February	155.0	162.0	556	2899	950	165	1091	636	134.3	704
March	151.5	160.0	583	2844	938	158	1081	632	133.1	693
April	151.1	160.2	621	2774	923	157	1081	650	132.7	692
May	151.7	156.8	692	2938	928	158	1070	688	132.3	698
June	152.3	155.6	761	2842	926	157	1079	738	131.9	709
July	150.7	155.9	876	2838	948	158	1079	836	133.1	724
August	149.2	154.0	836	2759	963	162	1092	769	134.0	741
September	150.5	152.5	859	2723	973	162	1093	787	134.9	731
October	149.7	151.3	856	2716	972	178	1095	731	136.2	712
November	148.1	151.4	865	2739	978	170	1097	684	137.1	709
December	147.2	150.5	860	2718	978	158	1101	627	137.1	681
1927										
January	146.9	150.6	856	2706	979	157	1103	622	135.9	661
February	146.4	150.1	854	2688	975	156	1103	632	135.6	658
March	145.3	148.7	858	2649	976	153	1096	641	135.0	646
April	144.2	148.5	846	2592	979	152	1096	637	134.8	622
May	144.1	151.9	848	2751	988	152	1088	629	317.1	592
June	143.7	153.5	851	.....	990	152	1103	623	137.9	567

[1] 236 commodities since April, 1924.
[2] 36 commodities prior to 1920; 76 commodities in 1920 and 1921; 100 commodities in 1922.
[3] April.
[4] July.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

County	Netherlands	Norway	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand	South Africa	Japan	China	India
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Institute of Geography and Statistics	Chamber of Commerce	Dr. J. Lorenz	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office (revised)	Office of Census and Statistics	Bank of Japan, Tokyo	Bureau of Markets, Treasury Department, Shanghai	Labor Office, Bombay
Commodities	[3] 48	174	74	160	71	150	92	180	187	50	[5] 117	42
Year and month												
1913	100	100	100	100	-------	100.0	-------	100	100	100	100.0	-------
1914	109	-------	101	-------	[4] 100.0	-------	[4] 100	103	97	95	-------	[4] 100
1915	146	-------	119	-------	-------	-------	141	117	107	97	-------	-------
1916	224	-------	141	-------	-------	-------	132	126	123	117	-------	-------
1917	276	-------	166	-------	-------	-------	146	143	141	147	-------	-------
1918	373	-------	207	-------	-------	-------	170	169	153	193	-------	236
1919	304	-------	204	-------	-------	-------	180	176	165	236	-------	222
1920	292	-------	221	359	-------	307.3	218	207	223	259	152.0	216
1921	182	-------	190	222	196.5	197.2	167	192	161	200	150.2	199
1922	160	-------	176	173	167.7	158.8	154	165	129	196	145.5	187
1923	151	232	172	163	179.9	158.9	170	158	127	199	156.4	181
1924	156	267	183	162	175.7	166.2	165	165	129	206	153.9	182
1925	155	253	188	161	162.9	159.1	162	161	128	202	159.4	163
1926	145	198	181	149	148.2	148.1	161	155	123	179	164.1	149
1923												
January	157	223	170	163	174.7	157.0	163	-------	131	184	152.7	181
April	156	229	174	168	185.9	162.0	167	-------	126	196	157.7	180
July	145	231	170	162	179.8	156.5	180	-------	124	192	155.4	178
October	148	235	171	161	181.1	158.1	171	-------	125	212	156.1	181
1924												
January	156	251	178	161	183.2	165.4	174	-------	131	211	155.8	188
April	154	263	184	161	181.4	164.7	166	-------	126	207	153.7	184
July	151	265	182	157	173.3	162.6	163	-------	125	195	151.5	184
October	161	273	186	167	169.0	170.0	163	-------	133	213	152.8	181
1925												
January	160	279	191	169	170.8	171.1	163	166	130	214	159.9	173
February	158	281	192	169	170.8	168.9	162	162	-------	210	159.2	173
March	155	279	193	168	169.9	166.3	160	162	-------	204	160.3	171
April	151	273	190	163	165.9	161.9	158	162	130	202	159.3	165
May	151	262	191	162	163.0	158.6	159	162	-------	199	157.8	164
June	153	260	187	161	161.9	157.2	162	162	-------	200	157.3	160
July	155	254	188	161	160.6	156.9	162	161	127	198	162.8	158
August	155	249	184	159	159.6	156.2	162	161	-------	200	160.3	160
September	155	237	185	157	159.4	155.1	162	160	-------	201	160.2	157
October	154	223	187	154	159.2	153.9	163	163	124	200	159.0	158
November	154	220	186	155	157.0	152.7	165	161	-------	198	158.4	160
December	155	220	187	156	156.7	152.1	160	160	-------	194	158.1	154
1926												
January	153	214	186	153	155.5	151.3	161	159	124	192	164.0	154
February	149	211	186	152	154.5	148.8	160	159	-------	188	163.0	151
March	145	205	183	149	150.8	144.4	163	157	-------	184	164.4	150
April	143	199	179	150	148.4	143.6	168	156	120	181	162.8	151
May	143	197	179	151	146.6	144.9	167	156	-------	177	159.7	151
June	144	194	177	150	145.1	146.4	163	155	-------	177	155.8	150
July	141	192	178	148	145.0	148.7	162	156	122	179	156.9	149
August	139	193	180	147	145.5	149.1	162	154	-------	177	160.5	148
September	140	193	178	146	146.0	150.9	158	153	-------	176	164.2	149
October	143	198	179	148	145.3	152.1	154	153	127	174	171.1	147
November	147	199	185	148	146.9	152.4	155	151	-------	171	174.4	146
December	147	184	186	150	148.3	146.1	155	153	-------	170	172.0	[6] 146
1927												
January	145	174	184	146	146.5	143.6	154	150	128	170	172.8	146
February	146	172	180	146	145.4	142.6	153	146	-------	171	172.0	148
March	144	167	179	145	146.7	140.6	150	146	-------	171	174.7	148
April	143	164	177	143	146.5	139.8	151	147	126	170	173.1	145
May	145	162	172	145	147.1	141.1	152	145	-------	171	173.3	148
June	149	166	-------	146	147.2	141.8	155	145	-------	-------	169.5	147

[3] July. [4] 52 commodities in 1920; 53 commodities from August, 1920, to December, 1921. [5] 147 items.

COST OF LIVING

Waste of the Consumer's Money

"WE ARE all Alices in a Wonderland of conflicting claims, bright promises, fancy packages, soaring words, and almost impenetrable ignorance" as to the real merits of things we buy, in the words of the authors of a recent book entitled "Your Money's Worth."[1] There is no protection against articles which are valueless, no protection against harmful ingredients if the formula on the label means little to the buyer, and seldom can a reliable word as to the relative merits of the brands in any one group be found, according to the authors. Paying the highest price, hoping to get the best, is not an infallible guide. The assertion is made that goods no better than the general run are being deliberately marked up to catch the consumer who would have the best.

Some of the data contained in the book, on misrepresentation and adulteration of product, dangerous or useless products, short weight and short measure, and variation in product, are here presented, together with a brief account of work for the aid and protection of the consumer.

Misrepresentation and Adulteration of Product

ONLY a fraction of what is known of adulteration and misrepresentation of products is ever made public. Hundreds of chemists and engineers throughout the country are said to be constantly testing all kinds of articles, but they must regard their findings as confidential, as otherwise their business would be ruined as well as their professional standing. A member of the Federal Trade Commission has estimated that "there are at least 1,000 advertisers of fraudulent schemes now operating regularly with the aid of certain magazines and newspapers throughout the country. In one publication alone he found no less than 50 different advertisements which he 'thought it safe to designate as illegal.' The annual loss to the consumer 'runs into hundreds of millions of dollars.' "

The Federal Trade Commission is believed by the authors to be perhaps the best source for facts about fraudulent and misrepresented goods at present, but its interest in the technical analysis of goods is secondary to its interest in questions of trade practice and simple chicanery under the provisions of its enabling act. However, in the course of its work the commission has uncovered numerous cases of fraud, among which the book under review mentions the following: Chinese lace being sold as Irish lace; cloth hat bags made to look like patent leather and sold as such; "silk" which contained none; "Philippine mahogany," when mahogany, it is said, does not grow in the Philippines; cotton blankets labeled to convey the impression

[1] Chase, Stuart, and Schlink, F. J.: Your money's worth; a study in the waste of the consumer's dollar. New York, 1927. 285 pp.

that they contained wool; roofing material impregnated with asphalt but advertised as containing rubber, the thickness of the roofing also being misrepresented; paints sold under labels indicating they were made for the Government but which were not used by the Government and were inferior to those actually used by it; candlesticks sold as sterling silver which were composed of pitch, cement, lead, or steel coated with sterling silver; bedding sold by one firm under various names and prices and represented as being of different grades, but made of the same grade of material, labels being attached as orders were received.

One of the outstanding controversies over the correct marking and description of goods has been that over furniture. During 1926, however, the Federal Trade Commission is reported to have succeeded in getting 861 firms to subscribe to a code of honest labeling and cataloguing adopted by a conference of the industry in 1925, the firms which did not subscribe refusing to do so, it is said, mainly on the ground that the code requires veneered furniture to be described as such, while it has been the custom of the trade to let the veneer speak for the whole material.

The writers refer to testimony introduced in the congressional hearings on the "truth in fabrics" bill, now pending before Congress, to the effect that 90 per cent of the fur sold in this country is not marketed under its right name. They say that about 80,000,000 pounds of reworked wool is being used yearly and that it is probable only a negligible percentage of it reaches the consumer under its real name. It is estimated that shoddy equals one-quarter of the total of wool fiber entering into woolen fabrics. One of the requirements of the truth in fabrics bill is that woolen goods be marked with the percentage of new and reworked wool which they contain.

In New York City convictions for misrepresenting the quality of jewelry have numbered 20 to 40 a year. A representative of the Jewelers' Board of Trade is credited with the statement that as soon as a conviction is obtained on what is clearly a case of fraudulent description "a new term is invented which is thought to be within the law and by means of which it is possible to deceive the public." He also is quoted as saying that rings made of 60 per cent white gold (at $14 an ounce) and 40 per cent platinum (at $150 an ounce) are marked "Platinum, 18K." Reference is made to a piece of jewelry having a setting of so-called platinum, and valued at $300, which showed less than a dollar's worth of platinum when assayed. "In the United States, the national stamping law, designed to control the marking of sterling silver, coin silver, gold, and platinum, has been practically inoperative because it has required proof of intent to deceive. * * * There has never been a single conviction under this law because of the word 'knowingly' inserted in the penalty section. In the more recent State laws the word 'knowingly' has been left out."

Dangerous or Useless Products

THOUSANDS of electrical devices—toasters, sockets, cord, plugs—which have not been tested and approved by the Underwriters' Laboratories, and are dangerous both from the point of view of fire and of personal safety, are reported to be on sale in 10-cent stores, department stores, and drug stores. Gas appliances are often

not only wasteful of fuel but highly dangerous. Solid tops for gas stoves, sold with the recommendation that they save gas and aid in keeping the range clean, often cause the stoves to produce carbon monoxide. "During 1925 alone, 607 people were asphyxiated in New York City by 'faulty gas tubes or gas heating devices of an improper type.'" In a study of causes of accidents from gas appliances, the United States Bureau of Standards reports that in a single home in Washington three different gas appliances were found that were dangerous producers of carbon monoxide.

The authors note that the gas industry, seeing the danger to the public and to its own best interests, has organized a well-equipped and competently manned certification laboratory. Nomenclature, materials, and stove, heater, and tubing performance specifications have been standardized, and an approval mark adopted by which ranges and other equipment that have passed the tests may be recognized by the consumer. The association now "lists nearly 600 different models of gas ranges which have passed its tests, and gas company executives have generally pledged themselves not to sell to the public ranges that are below the safety level."

An investigation was made by one of the universities of a device which the manufacturer advertised "would produce 25 to 50 per cent more heat per pound of coal and 20 to 40 per cent less ash" when attached to a householder's heater, the claim being backed by a $1,000 forfeit. It was found that "the householder lost money when he installed the device," the only benefit noted by the investigators being, it is said, an improvement in operating conditions due to the fact that when the device was installed the heater was thoroughly overhauled. The $1,000 forfeit was not paid, however.

A cleaning preparation containing 75 per cent of the violently corrosive poison sodium hydroxide was found not to bear the poison label, and, worse, the printed matter stated that it "does not injure the finest fabric or the most delicate skin." In February, 1927, a law was enacted "prohibiting the interstate and foreign shipment of such products unless duly branded to show their poisonous nature."

The American Medical Association is constantly making analyses of the composition of nostrums and the methods of selling them, and has uncovered many cases of fraud, its findings being given in its publications. Nearly all of the so-called patent medicines on the market are not patented but are "proprietaries," according to the writers. The inventor of a proprietary remedy is not required to make its composition public, except that he must mention on the label any of the 11 different drugs or their derivatives that the preparation may contain which the Federal pure food and drugs act provides must be so mentioned, and then only if the medicine is to be shipped out of the State of manufacture. He can get the name registered or trade-marked by the Government and it is always his exclusive property. He may change the formula or process as often as he likes and still use this name. The Federal law prohibits putting any false or misleading statements on the label or doctrinal matter surrounding the package, but it "does not apply to advertising matter apart from that on the package."

The book states that a certain preparation advertised by the statement that a "safer way of reducing can not be imagined" was found

to contain thyroid extract, which the American Medical Association is quoted as saying will sometimes bring about a marked reduction in weight after prolonged administration, but the use of which even under skillful medical supervision is fraught with danger. After disclosure by the American Medical Association of the harmful nature of this preparation "the formula was changed" and "cascara was substituted for thyroid—thus making——a simple laxative with no fat reduction qualities at all. It became safe but fraudulent."

Another preparation investigated by the American Medical Association, the advertising of which was a "triumph of impressive dignity," carried only in periodicals of the highest class, was described as follows: "——— is a scientific compound, every particle of which represents the finest concentrated tissue-constructing nutriment, endowed with unique revitalizing and rejuvenating powers. ——— contains over 700 per cent more tissue-building, life-sustaining nourishment than wheat flour." Laboratory analysis showed, it is reported, that $1 worth of wheat flour contains as much energy as $197 worth of the preparation, $1 worth of the latter furnishing only 332 calories while the same dollar spent for wheat flour would furnish 65,400 calories.

It is noted that a flour sold for the use of sufferers from diabetes was found to contain 71.4 per cent starch—when it is the absence of starch which is paid for in a diabetic flour. The American Medical Association has found an almost unlimited number of consumption cures on the market. Without a single exception all are frauds, as no medicine has been found which will cure that disease. The claim by the manufacturer of a well-known make of "kidney" pills that they will cure kidney disease the writers state has been declared fraudulent by the Government and its ruling upheld by the courts. However, they say the pills are still being advertised and the consumer continues to buy.

Thirty-two cases of poisoning resulted from the use of a particular kind of hair dye advertised as a walnut juice stain. However, the active principle of the dye was found on analysis to be a phenolic compound, an anilin derivative conforming to the test for paraphenylene diamin, the poisonous qualities of which have long been known, according to information credited by the authors to the American Medical Association.

Short Weight and Short Measure

ALTHOUGH the grosser forms of cheating in weights and measures are probably on the decline due to legislation covering this point, the practice is not confined to methods which are legally fraudulent. One of the most common instances of the giving of short weight, the authors believe, is in the case of package goods. In fact, the weight or contents of a package is often treated as of no consequence to the buyer. It is noted that the North Dakota State laboratories discovered food packages filled to only 20 per cent of their capacity. The book states that in asking for a pound of a certain brand of coffee one of the authors was handed a 12-ounce tin, as and for a pound, without comment, and in one store the tin was already wrapped with no weight mark showing.

Variation in Product

THE American Exchange National Bank is quoted as saying that "great as is the annual waste through preventable fires, it is small compared with the annual waste resulting from the reckless employment of capital in the production of varying sizes and styles of essentially like things," and the Chamber of Commerce of the United States "has estimated that one-quarter of all industrial effort in America is wasted because of irrelevant overdiversification of styles, types, and sizes," which "means the labor power of approximately 5,000,000 men and women and a full 25 per cent in the cost of living."

However, progress is being made in the elimination of superfluous varieties and styles. The book calls attention to the fact that the United States Department of Commerce has succeeded in reducing paving brick varieties from 66 to 4, sheet steel from 1,819 to 261, reinforcing bars from 40 to 11, range boilers from 130 to 13, business forms from 4,500 to 3, and warehouse forms from 3,500 to 18, the estimated annual savings on these products ranging from $1,000,000 in the case of paving brick to $15,000,000 in that of business forms. Electric lamp sockets and bases form one of the most noteworthy illustrations of standardization. "Once there were no less than 14 different methods of holding lamps in their sockets and at least 26 different lamp bases. By 1900, 70 per cent had come to be of one type and now there is practically none but the Edison base in this country." Wool blanket manufacturers are reported to have adopted three standard grades, and members of their association who meet the standards are given a quality seal and label.

Aid and Protection for the Consumer

THE United States Bureau of Standards the authors regard as "coming nearest to furnishing the ideal technique for protecting and informing the buyer. Better than any other single institution, it illustrates the possibilities of transferring the conception of standards from the realm of theory to the realm of the concrete. * * * With the bureau's testing information freely available [it is not now open to the public, a great lever would begin to operate on the manufacture of shoddy and shady goods, and on the selling of sound goods at exorbitant margins above their basic cost."

The United States Department of Agriculture does much work for the ultimate consumer in the field of household goods and equipment and in the form of advice and service to the farmer. However, except in legal cases where the facts about particular makes and makers are a matter of court record, it confines its advice to methods of making or selecting material and supplies, rather than to what makes to buy or from whom to buy them. For example, when paint is expensive and adulteration common, the department may issue a bulletin on painting on the farm which tells how to mix one's own paint and how to apply it, which information is, of course, useful anywhere.

Among the State governments, North Dakota is said to take the lead in local legislation for the protection of the consumer.

It has established full and comprehensive food, drug, and beverage inspection laws, with specifications defining color, freshness, potency, and other essential characteristics. Grades of vegetables, fruits, spices, etc., are defined in great detail. The State laboratory provides the unusual service of publicly listing the results of tests on milk, and of giving numerical scores based on excellence, to groceries, confectioners' shops, restaurants, bakeries, meat markets, slaughterhouses, bottling works, and wholesale houses through the State. A store proprietor who does not post his score card may usually be assumed to be ashamed of his place on the list. A few stores score 99 and 100 per cent; a very few are found down at the condemnation limit of 70, or below. The inspection and testing of gasoline which is carried on by North Dakota under Federal specifications, is particularly thorough and effective. * * * Another important work for the farmers of North Dakota lies in the extensive testing of paints done by the State under the paint and varnish laws.

Of the unofficial organizations engaged in work which may be considered of benefit to the ultimate consumer, the American Medical Association has been mentioned. Another body which may be referred to is the Society of Automotive Engineers. It is reported to have worked out about 600 standards for the automobile industry. The total savings as a result of its work are estimated at over $750,000,000 a year. "Much of this flows primarily to the benefit of the manufacturer, but a large amount is carried through to the automobile-owning public."

In addition to the activities of the trade associations already noted, the asphalt roofing association "has pledged itself to put its entire output on the basis of Federal specifications—nothing to be made at a quality lower than Government standards." The bakers' association in cooperation with the Department of Agriculture, it is said, has promulgated definitions and standards for bread, registers baking materials submitted for test, and issues certificates of quality.

The fire underwriters have established a thoroughgoing service covering the test and certification of appliances involving fire and casualty hazards.

* * * Here one finds specifications, inspection work, comprehensive technical reports, certification, and a regular listing of approved products, so that the consumer may know the safe and efficient makes of electrical appliances, motion-picture machines, automobile bumpers, locks, goggles, and fire-fighting equipment. * * * "Approved by the Underwriters Laboratories" or "Approved by Factory Mutual Laboratories" implies protection, from coast to coast.

Pennsylvania Survey of Bread and Flour Consumption[1]

A SURVEY recently made in the cities of Philadelphia, Wilkes-Barre, and Sunbury, Pa., by the Pennsylvania Bureau of Markets, the Pennsylvania Bakers Association, the Philadelphia Bakers Club, and the United States Bureau of Agricultural Economics, has provided data concerning the preference for various bakery products, for bread and pastry flours, the extent to which people eat commercial bakery products, the extent to which they bake at home, the influence of advertising upon their buying habits, and other information which the baking industry has long desired.

[1] Reprinted from U. S. Bureau of Foreign and Domestic Commerce, "Domestic Commerce," July 29, 1927, p. 7.

The survey disclosed the fact that bread is ranked third among the most important foods, being surpassed only by meats and vegetables, and followed by milk. Incidentally, the same rank was given to bread in the milk survey made in Philadelphia in 1924. Sixty per cent of the housewives interviewed in the three cities were of the opinion that no change had taken place in the amount of bread consumed per family during the past two years. Thirty per cent reported an increase in their per family consumption of from 12½ to 25 per cent, while 10 per cent of the housewives reported a similar decrease. Little or no seasonal variation was reported. White bread was given a preference and is reported to constitute 90 per cent of the entire bread consumption. The proportion of white bread eaten is highest among the poor classes; while the well to do are consuming a relatively larger proportion of whole wheat and graham bread. The per capita consumption of all bread in the three cities is slightly more than 2¼ loaves per week. Five per cent of the bread used in Sunbury, about 7 per cent in Philadelphia, and about 33 per cent of that used in Wilkes-Barre is baked at home. Approximately one-half the housewives in Philadelphia, three-fourths in Wilkes-Barre, and practically all in Sunbury bake pies and cakes at home.

The fact that 90 per cent of the housewives who bake pies and cakes at home in Wilkes-Barre and Philadelphia use western hard wheat bread flour, although flour milled of soft Pennsylvania wheat is more satisfactory for pastry baking, was surprising to the investigators. At Sunbury most of the housewives used soft Pennsylvania wheat flour, which is produced and milled in that locality.

Philadelphia, Wilkes-Barre, and Sunbury were selected for the survey inasmuch as they represent three distinct types of economic and social communities. The chief industry of Sunbury is railroading, and the majority of the inhabitants are native-born Americans. The principal industry of Wilkes-Barre is, of course, anthracite coal mining, and a large part of the population is of foreign birth. In Philadelphia the textile industry is probably the greatest employer of labor but the city may be classed as a general industrial and commercial city. The population is predominantly American, although some parts of the city are inhabited by large numbers of foreign born. Attention has been given to the foreign-born groups in the survey.

The baking industry in Pennsylvania is the fifth largest single industry of the State, being surpassed only by the steel, coal, silk and silk goods, and hosiery industries. The baking interests have long felt that there is perhaps no business the size of theirs about which fewer facts are available. This prompted the survey just described. The results were found so enlightening that it has been proposed to extend the survey so as to procure facts about flour and bread consumption in the entire State. It has been proposed that a national survey be undertaken by the American Bakers Association or through the cooperative efforts of its member units.

Cost of Living and Family Budget Studies in Foreign Countries [1]

A GENERAL account of the different methods followed in compiling index numbers of cost of living and a description of the index numbers currently calculated in various foreign countries are given in a recent report by the National Industrial Conference Board.

The establishment of a standard by which changes in the cost of living could be measured became of great importance in the disturbed economic conditions which arose during the World War. During that period much of the machinery of production was in the hands of the governments, and in an effort to control the rising prices various expedients such as price fixing and the regulation of house rents were tried. Following the war and with the removal of Government control of prices, which had the effect of still further increasing prices, there was added need for accurate measurements of the cost of living. As a result, during both the war and postwar periods Government statistical offices and private organizations or individuals interested in the relations between wage earners and employers have been more or less occupied with the establishment of an index which should reflect the price fluctuations of at least the most important household services and commodities.

Index numbers of cost of living are compiled at the present time in about 40 countries, the data being collected in the majority of cases by an office of the central government or of one or more of the principal municipalities.

Various methods have been followed in constructing the cost-of-living indexes. In some countries investigations of household budgets had been made before the war, but in many countries there was no such material available and in those cases either an actual budgetary study has been made or a theoretical budget based on the prices of a number of the more important commodities has been constructed. In place of household expenditures the national consumption of certain articles is sometimes used as a basis for computing the index numbers. Cost-of-living indexes are usually based on retail prices. Wholesale prices are sometimes used as they are more readily available but they are generally recognized to be only a makeshift. If the index is a district or national one prices are secured in more than one locality, usually either the most important industrial centers or towns within certain population groups being selected.

Price quotations are collected in the majority of cases either directly from the dealers, who report by mail to the office calculating the index, or through special agents who visit the dealers regularly for this purpose. In the choice of dealers from whom quotations are to be obtained consideration must be given to the classes in the community who make up their customers. If the prices are collected under the authority of a national government, free use of the mails often facilitates the collection of the data.

Although there is no unanimity of opinion as to the articles and services which should be selected it is rather generally agreed that the expenditures for the average household should be divided into five major groups—food, fuel and light, clothing, housing, and mis-

[1] National Industrial Conference Board (Inc.). The cost of living in foreign countries. New York, 1927. 402 pp.

cellaneous items—as an index number based on these items is generally considered more accurate than one which covers only a part of them. Many earlier indexes and a number of those computed at the present time, however, do not cover the entire list, due partly to the cost of the more complete investigations and partly to the difficulty of collecting information regarding rent, clothing, and miscellaneous items. In most cases the index numbers are intended to show the changes in the cost of living of the wage-earning classes, and the articles included, therefore, represent those most commonly used by the working people since these indexes are used principally as the basis for wage adjustments.

After the selection of the articles on which prices are to be secured it is necessary to assign to them their proper weight or importance in the budget. This is done either by the aggregate expenditure method, in which current prices are weighted by assigning to each article or service a definite quantity which is supposedly consumed or used by an average family in a given period of time, or by the weighted price relative method, which involves the calculation of price relatives for each article. These methods may be used alone or in combination in the computation of the total index of the cost of living.

The greater part of the indexes are compiled by the national governments, usually by their statistical or labor departments. Italy and the Netherlands are listed, however, among the more important of the countries in which no index is compiled by national authority, and Algeria, India, Rumania, and Turkey also have indexes computed either by local administrations or by nonofficial organizations or individuals.

The indexes, even though compiled by national governments, are not in every case representative of the country as a whole, sometimes relating only to the capital city. The only index number prepared by a nongovernmental body which is representative of the entire country is the one compiled by the Swiss Association of Cooperative Societies.

In 22 of the countries in which the national authority compiles the indexes the five major items of household expenditure are represented while with only three exceptions those compiled by municipal administrations or other local authorities are also based on the comprehensive family budget.

The articles included in these five items vary greatly; for example, the number of articles named under "food" ranges in the different countries from 14 to 205; in most cases the items listed under "fuel and light" are under 10; and those grouped under "clothing" range from 2 to 159. Miscellaneous items range from the inclusion of only one or two types of expenditures to a practically complete list of such expenditures.

The weights assigned to the different items are directly applied when the weighted price relative method is used and indirectly when the aggregate expenditure method is used. In some cases these indirect weights have been computed by the National Industrial Conference Board for use in the following table, which shows the relative importance of the major item, expressed on the basis of the total cost of living being equal to 100. It is pointed out in the report,

however, that "any comparison of these proportions in the indexes of different countries or in the different indexes of the same country must be made with some degree of caution. While to some extent they may reflect different standards of living, they also reflect in some degree different methods of grouping the articles and services to which the budget relates." In general the indexes relate to wage earners, but in Egypt and Greece they are compiled for salaried employees or persons of the middle class.

RELATIVE IMPORTANCE OF MAJOR ITEMS IN COMPLETE BUDGETS

Country and index	Food	Fuel and light	Housing	Clothing	Miscellaneous
Algeria	60	4	10	16	10
Australia	34.8	([1])	23.7	23.2	18.3
Belgium [2] I	68.13	6.7	[3] 7.68	11.84	5.65
II	66.8	6.08	[3] 7.76	13.41	5.95
III	63.94	5.03	[3] 6.2	14.57	10.26
IV	60.68	4.09	[3] 4.77	18.83	11.63
V	64	4.82	[3] 9.65	13.81	7.72
Canada	35	9.1	22.6	14.3	19
Czechoslovakia, wage earners	56.22	5.81	18.06	7.69	12.22
Czechoslovakia, public officials	42.23	5.3	18.71	13.62	20.14
Danzig	55	6	20	10	9
Denmark	41.7	4	12.4	11.2	30.7
Egypt	51.9	([4])	11.7	16.7	19.7
Estonia, old series	60	5	10	15	10
Estonia, new series	58.4	5.8	7.5	15.7	12.5
Finland	61.9	4.6	13.3	13	7.2
France:					
Bordeaux, printing	60	5	12	15	8
Nantes, coal importers	71	6	5.9	9.3	7.8
Paris [5]	60	5	12	15	8
Nancy [5]	60.4	6.2	14.1	11.3	8
Lille [5]	65	7	5	12	11
Bar-le-Duc [6]	57.9	4.5	10.3	24.8	2.5
Germany:					
Federal Statistical Office	55	6	20	10	9
Ludwigshafen	59.8	4.9	17.2	11.7	6.4
Nuremberg [7]	57.1	4.3	20.3	8.7	9.6
Dr. Elsas	55	5	18	12	10
Dr. Kuczynski	34	6.6	19.1	20.3	20
Great Britain	60	8	16	12	4
Greece, National Bank	55	([4])	11	15	19
Hungary, Benö Gál	39.3	6.4	24.4	16.4	13.5
India, Europeans	11.1	4.5	19	6.9	58.5
Indo-China, Europeans, Hanoi	35.3	([8])	24.5	10.8	29.4
Indo-China, Europeans, Saigon	36.4	([8])	27.1	7.5	29.0
Irish Free State	57.05	7.04	5.14	17.48	13.02
Italy:					
Milan, old series	62.09	4.51	11.4	12	10
Milan, new series	60.69	2.94	6.57	16.89	12.91
Milan, salaried employees	27.78	5.64	13.72	29.25	23.61
Rome, old series, wage earners	62.64	7.25	13.19	10.23	6.69
Rome, middle class	37.56	6.34	20.47	15.95	13.68
Venice	60.17	5.12	5.3	16.7	12.69
Verona, salaried employees	35	9	12	26	18
Netherlands:					
Amsterdam	44.8	6.7	13.4	8.8	26.3
Hague, wage earners	48.4	7	8.9	12.9	22.8
Hague, public officials	36.7	5.5	9.9	15	32.9
New Zealand	39.01	5.97	23.21	15.87	15.94
Norway, wage earners	48	5.4	15.6	12.7	18.3
Norway, public officials	39.4	4.7	15.6	15.1	25.2
South Africa	39.7	4.4	22.6	10.6	22.7
Sweden	42.8	4.1	15	11.85	26.25

[1] Included under "miscellaneous."
[2] Groups I to IV are wage earners differentiated according to income; Group V, middle-class families.
[3] Includes furniture.
[4] Included under "food."
[5] Regional cost of living commission.
[6] Departmental cost of living commission.
[7] Family of 5 persons.
[8] Included under "housing."

Study of Household Budgets in Stockholm, 1922–23[1]

DURING 1922–23 the National Social Welfare Office of Sweden made a cost of living inquiry in various localities in that country, including Stockholm. The investigation in that city included 167 household budgets of which 27 were for middle-class families, 85 for working-class families, and 55 for subordinate employees. The families covered averaged 3.9 members for working-class and middle-class households, and 4.1 members for the households of subordinate employees. The following tables give some of the findings of the survey and contrast the incomes and expenditures of different classes of households and also the quantities of commodities consumed by such households.

In order to render these various household budgets more comparable they were recomputed, for a normal family of 3.3 units of consumption, each unit being regarded as equivalent to the consumption of an adult. The average expenditures of these normal households are figured at 4,880.7 kronor ($1,287) among industrial workers, 5,654.6 kroner ($1,491) among subordinate employees, and 9,438.7 kronor ($2,488) among middle-class families in easy circumstances.

The contents of the budget of expenditures varies considerably according to the social status of the different households. For example, among the industrial workers food, beverages, tobacco, etc., constitute 43.1 per cent of the budget; among subordinate employees, 38.5 per cent; and among middle-class families, only 26.9 per cent. There was little variation in the expenses for lodging, such item constituting 12.2 per cent of the budget among industrial workers and 13.5 per cent in the middle classes.

Improvements in the standard of living are reflected in a decline in the percentual importance of foods and an increasing importance in the proportion expended for intellectual culture.

Table 2, giving the relative quantities of commodities consumed by a normal household of each class, shows that industrial workers expend less on animal food and that a higher income often means an increased consumption of such foods. If the edibles in different budgets are converted into calories one finds among families in easy circumstances a greater nutritive value per unit of consumption than among industrial workers' families.

For purposes of comparison some of the results of the inquiry of 1907–8 by the Stockholm Municipal Statistical Service are given in the last column of Tables 1 and 2. The improvement in the standard of living in the later period (1922 and 1923) is shown especially by the fact that the nutritive value of habitual foods per unit of consumption was 3,450 net calories as compared to the approximately 2,900 net calories shown by the 1907–8 investigation.

[1] Sweden. [Socialdepartementet.] Socialstyrelsen. Stockholms stads statistik X, Specialundersökningar, No. 13: Statistisk undersökning angående levnadskostnaderna i Stockholm, 1922–1923. Stockholm, 1927.

TABLE 1.—DISTRIBUTION OF INCOME AND EXPENDITURE PER "NORMAL HOUSEHOLD" IN STOCKHOLM, 1922–23

Household groups	Middle class households	Households of workers and subordinate employees					All households taken in 1907–8
		Industrial workers	Subordinates employees	Having an income per unit of consumption of—			
				Under 1,300 kr.	1,300–1,950 kr.	1,950 kr. and over	
Number of households	27	85	55	39	65	36	150
Number of units of consumption per household [1]	2.93	2.99	2.99	3.95	2.81	2.28	3.29
Income per normal household	[2] $2,370	$1,289	$1,494	$964	$1,441	$1,973	$574
Per cent of total family income represented by—							
Ordinary income of husband	87.6	82.7	87.3	80.6	85.5	87.0	84.1
Extra income of husband	3.3	4.3	4.4	2.5	5.5	4.1	3.0
Income of wife	5.0	2.9	1.6	3.0	2.0	2.3	2.7
Income of children	.5	4.8	2.4	9.1	2.8	.3	2.6
Income from rent of rooms with or without board	.8	2.4	1.6	1.5	2.0	2.8	4.2
Assistance in sickness, pensions, etc	.2	.8	.3	.7	.7	.3	.9
Presents	.8	.5	.2	.6	.4	.2	.9
Interest	.5	.3	.1	.4	.1	.1	1.7
Other receipts in money	.4	.4	1.4	.5	.2	2.1	
Other receipts in kind	.8	.9	.8	1.1	.8	.8	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total expenditures per normal household	[2] $2,488	$1,287	$1,491	$992	$1,418	$1,961	$584
Per cent expended for each item:							
Food and stimulants	26.9	43.1	38.5	47.6	40.3	36.1	43.7
Food	21.1	36.2	32.8	41.1	34.2	29.3	38.9
Drinks	2.0	3.4	3.0	3.5	2.9	3.5	2.4
Tobacco	.9	1.2	1.0	.8	1.2	1.3	.5
Meals, outside of the home	2.9	2.3	1.7	2.2	2.0	2.0	1.9
Lodging	13.5	12.2	12.7	12.0	12.8	12.2	19.0
Heat and light	3.3	4.0	4.0	4.1	4.0	3.8	4.2
Clothing	9.4	8.8	10.5	8.5	10.1	9.7	7.7
Shoes	2.2	3.2	3.4	3.8	3.3	2.9	3.2
Taxes	9.0	6.0	7.0	4.7	6.7	7.7	4.5
Furniture	6.0	4.2	3.9	2.8	3.5	6.1	4.1
Insurance	4.4	4.1	3.8	3.7	3.9	4.4	4.0
Education of the children	.5	.4	1.0	.7	.9	.3	.6
Papers	.9	1.4	1.1	1.3	1.3	1.2	.7
Books	1.3	.4	.4	.2	.4	.5	.5
Postal and telephone charges, etc	1.4	1.0	1.2	1.0	1.1	1.2	.5
Laundry	.6	.3	.4	.3	.3	.4	.5
Cleaning supplies, toilet articles	1.0	1.0	1.0	1.0	1.0	1.1	1.3
Medical care	1.8	1.7	1.9	1.1	2.2	1.7	.9
Hygiene	.7	.4	.4	.4	.4	.5	.5
Hired female help by the day	2.6	.3	.4	.3	.1	.8	.3
Presents	3.0	1.7	1.7	1.1	1.9	2.0	1.0
Pleasures and recreation	1.5	.7	.6	.8	.6	.6	.2
Travel	3.3	3.4	3.6	3.0	3.2	4.3	1.8
Interest	1.0	.1	.4	.2	.2	.3	.8
Other expenses	5.7	1.6	2.1	1.4	1.8	2.2	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] The figures given on this line represent the averages drawn from the real units of consumption of which each household was composed. The following figures both for income and expenditures in 1922–23 refer to a fictitious normal family composed of 3.3 units of consumption.

[2] Converted into United States currency on basis of average exchange rate for 1922–23, 26.36 cents; for 1907–08, 26.8 cents.

TABLE 2.—AVERAGE CONSUMPTION OF ARTICLES OF PRIME NECESSITY PER "NORMAL HOUSEHOLD" IN STOCKHOLM, 1922-23

[Kilogram=2.2046 pounds; liter=1.06 quarts; hectoliter=2.837 bushels; hectogram=0.22046 pounds; meter=39.37 inches]

Household groups	Unit	Middle-class households	Households of workers and subordinate employees					All households taken in 1907-8
			Industrial workers	Subordinate employees	Having an income per unit of consumption of—			
					Under 1,300 kr.	1,300 to 1,950 kr.	1,950 kr. and over	
Foods								
Meats	Kilogram	165.0	161.4	167.3	141.9	169.0	193.1	151.5
Fresh beef	do	30.7	28.7	34.6	27.4	30.7	38.3	38.5
Fresh veal	do	21.1	17.2	16.5	13.5	17.8	20.5	16.7
Fresh mutton and lamb	do	9.2	6.9	8.3	6.9	6.9	9.6	7.0
Fresh meat hashes	do	14.5	17.2	16.5	15.9	17.5	18.1	.....
Other fresh meat	do	21.5	18.1	17.5	14.2	18.5	23.8	2.6
Fresh pork	do	29.1	22.8	27.4	21.1	25.7	29.4	19.9
Salted or smoked meats	do	2.3	4.3	4.6	3.6	5.0	5.3	6.2
Salt pork	do	13.2	14.2	11.5	8.9	15.2	16.8	30.6
Sausages, etc	do	23.4	32.0	30.4	30.4	31.7	31.2	30.0
Fish	do	84.1	78.6	82.5	64.0	85.8	97.3	65.8
Herrings, fresh	do	27.0	28.4	27.7	24.1	30.0	32.0	21.4
Other fresh fish	do	28.4	17.9	21.2	13.5	20.2	26.7	13.4
Salted herrings	do	22.1	25.7	28.7	21.8	28.7	32.7	21.6
Other salted fish	do	6.6	6.6	4.9	4.6	6.9	5.9	9.6
Milk and cream	Liter	1,003.9	1,001.2	1,058.5	904.7	1,071.0	1,141.1	.....
Butter	Kilogram	44.5	36.6	38.9	30.0	39.6	46.5	32.3
Margarine	do	21.1	18.8	21.5	19.8	18.8	21.5	8.7
Fats	do	6.6	6.6	7.6	6.9	7.6	5.9	5.5
Cheese	do	16.2	15.5	16.5	14.9	14.9	19.8	12.8
Eggs		759.0	664.0	730.0	570.0	695.0	898.0	568.0
Rye bread, dry	Kilogram	38.6	43.9	41.3	41.6	44.5	41.9	58.7
Rye bread, fresh, sour	do	15.2	7.6	14.2	9.9	9.6	11.6	.....
Rye bread, fresh, sweet	do	48.5	51.2	44.5	50.1	45.9	51.8	.....
Wheat bread	do	26.1	29.0	24.8	25.7	28.0	28.7	.....
Biscuits	do	6.6	6.9	6.9	7.3	6.6	6.9	.....
Flour	do	175.0	182.8	206.9	180.2	200.6	194.7	152.7
Wheat	do	136.9	146.5	153.1	143.2	155.5	145.5	123.7
Rye	do	4.0	3.3	4.6	2.3	4.6	5.0	6.3
Bolted rye	do	27.1	28.0	41.6	30.4	34.3	35.6	15.2
Other	do	7.0	5.0	7.6	4.3	6.2	8.6	7.5
Cereals	do	35.9	26.4	31.7	25.0	31.4	29.7	26.4
Peas and red beans	do	8.6	7.3	7.3	6.2	8.3	6.3	9.1
Potatoes	do	342.2	348.8	391.0	301.0	389.4	432.3	273.0
Edible roots	do	20.5	18.5	21.5	15.5	21.1	24.4	.....
Sugar	do	111.6	99.3	109.2	88.4	108.9	117.8	79.3
Molasses	do	4.6	3.3	4.6	3.0	4.3	4.3	2.6
Coffee	do	20.1	19.8	19.5	17.5	20.1	24.1	17.2
Cocoa	do	2.6	2.0	2.3	1.7	2.0	2.3	1.6
Tea	Hectogram	6.4	3.3	2.7	2.6	2.6	5.3	2.7
Drinks								
Brandy and other alcoholic drinks	Liter	18.5	20.8	22.8	15.8	21.1	33.7	10.1
Wines	do	2.3	1.0	1.0	.7	1.0	1.6	1.1
Beers	do	64.0	79.4	66.1	69.7	61.9	109.7	86.3
Light beers and soft drinks	do	30.9	13.7	9.7	10.7	10.8	17.9	74.9
Heat and light								
Wood	Meter	7.3	5.0	5.9	4.6	5.3	6.6	4.8
Coal	Hectoliter	2.6	.7	1.7	.6	.7	2.3	3.6
Coke	do	9.9	2.3	2.6	2.0	2.3	3.6	
Gas	Meter	294.0	194.7	204.3	140.2	211.5	278.8	160.6
Petroleum	Liter	15.5	23.8	22.1	16.2	22.4	38.0	90.7
Electric light	Kilowatt	108.9	70.6	80.9	63.0	74.6	97.2	.....

LABOR AWARDS AND DECISIONS

Awards and Decisions

Men's Clothing Industry—Chicago

Helpers

THE impartial chairman of the Hart, Schaffner & Marx Trade Board rendered a decision in case 1590, May 26, 1927, relative to the employment of helpers in the sponging department to pull goods over the perch. The union claimed that the work belonged to the examiners. The history of the case and the decision of the impartial chairman are as follows:

The testimony of the union's witnesses indicated that this work had been done by helpers, by examiner apprentices, and by examiners; that after the opening-up machines were installed the work on the opening machines was done exclusively by helpers, except work sent back from the cutting room, part of which was handled by examiners and part by helpers. Recently it has become necessary to have some pulling over done in order to help out the machine work. The company has assigned helpers to this work, and hence the complaint.

In view of the evidence this work of opening up by pulling over the perch does not belong exclusively to either the helpers or the examiners. Both have worked on it at times.

In view of this fact the only fair decision is one that would apportion this work in equal amounts to helpers and examiners. Of course if the parties in interest would agree to classify this pulling over either as examiners' or as helpers' work that would be probably the best solution.

But in view of the evidence as to the previous usage the trade board would not be warranted in restricting the work either to the helpers or the examiners exclusively. The work, therefore, is to be divided as nearly equal as practical between the helpers and the examiners.

Stoppage

A DECISION of the board of arbitration was given in case 1597, June 4, 1927, in a stoppage of cutters at Hart, Schaffner & Marx. One Friday noon the cutters left the shop, returning the following Tuesday morning. That evening the company discharged eight of them. The union requested the trade board to reinstate the men. The trade board referred the request to the board of arbitration.

Before that board the firm said that the discharge "was in accordance with rights established by the agreement, which provides that when workers engaging in a stoppage refuse to return to work within a given time, any or all may be selected for discipline."

The union entered no denial of the fact of the stoppage or that the cutters left the shops. No attempt was made to justify the stoppage and the union felt it unnecessary to reaffirm its opposition to stoppages. What the union did contend was that these cutters were no more guilty than other cutters, and that their discharge amounted to discrimination unless the firm was able to present proof that they were more guilty than others. If they were not more guilty and discipline was merited, the union held that all should be disciplined alike.

The board has considered the matter fully and has come to the following conclusion: The action of the firm should be sustained only in the case of those cutters whose guilt appeared to the board to be clearly greater than the guilt of others; the other cutters should be reinstated. The stoppage was so flagrant a violation of the agreement and of orderly procedure that all participating should be disciplined. The board directs:

1. The discharge of [three men] is sustained, the others to be reinstated as of June 6, 1927.

2. A fine of $5 is to be imposed on each and every cutter participating in the stoppage (other than those discharged), this amount to be deducted from the wages next to be received and to be turned over to the trade board as a relief fund for members of the amalgamated employed by Hart, Schaffner & Marx.

Men's Clothing Industry—New York City

Contractor for New Grade

A FIRM desired to abandon a $3.58 line of goods which it was manufacturing and substitute therefor a line costing about $4.75. It was unable to secure a contractor for this grade due to the union insisting "on selecting the contractor and in specifying how the coat shall be made." The firm demanded the right to select its own contractor and determine how the new garment should be made, and accordingly appealed to the impartial chairman for permission to employ a contractor as desired.

The position of the union is as follows: The union can not permit manufacturers to select contractors in the open market any more than it permits individual workers to thus select jobs. To permit this would mean to undermine existing standards. The union has grouped contractors in various classes according to the quality of the work they make. The prices of those who make set-on collars range from $5.50 to $7. If the firm wishes to pay no more than $4.75 it can not get a coat with a set-on collar. The practice of asking for a $4.75 coat and then offering 25 cents more for a set-on collar means virtually that a $6 coat is obtained for $5, and that the contractor has been forced to give a $1 reduction. The result may mean ruin for the contractor, but the manufacturer has been enabled to undersell his competitors. It is in this way that standards in the market are undermined.

The exchange did not wish to see standards undermined nor to aid unfair competition. The fact remained, however, that this firm could obtain any number of contractors who would make the new grade for $4.75 with a set-on collar, and that many of the firm's competitors were getting similar garments for $4.75 and even less. The firm was merely demanding the privilege enjoyed by its competitors.

In the light of the firm's recorded assurance that the $3.58 line will be discontinued completely and that the $6 grade will be manufactured as heretofore, the firm is permitted to have a contractor for a new grade at $4.75, such contractor to be mutually agreed upon by the exchange and the union, and to manufacture the kind of a garment which the firm requires in its business.

Temporary Worker

A CASE of the selection of a temporary worker was decided by the impartial chairman in the New York Clothing Industry in Case No. 353, June 13, 1927. The facts were as follows: A temporary cutter had recently been installed as a permanent cutter. Although he had worked for the firm longer than another temporary cutter the union demanded that the latter be given the position on the ground that by union rule he had a "seniority claim" to it.

The union claimed "the privilege of waiving its own seniority rule when it sees fit, and of deciding which of two temporary men shall become permanent."

The impartial chairman sustained the union view as follows:

In the opinion of the impartial chairman the firm has failed to prove any valid objection to Mr. R. At no time during the past three seasons has the firm availed itself of the opportunity to present a complaint regarding this matter to the exchange or to the impartial chairman. Irrespective of other considerations the fact remains that for three seasons the firm has, for reasons not made clear, called in Mr. R. when in need of additional cutters. This could hardly have happened if his work were not satisfactory. In view of this all-important fact, the chairman feels that Mr. R. should now be retained as a permanent worker.

Railroad Trainmen—Western Railroads

THE decision of the arbitrators in the dispute between the Order of Railway Conductors and Brotherhood of Railroad Trainmen and certain western railroads was given June 25, 1927. The railroads selected as arbitrators, W. J. Jackson and J. W. Higgins; the employees, E. P. Curtis and J. A. Farquharson; the United States Board of Mediation, Everett C. Brown and W. M. W. Splawn.

The new day rates requested by the men were: Conductors, $7.75; assistant conductors and ticket collectors, $6.84; baggagemen handling express, dynamo, and Government mail, $7.18; baggagemen handling dynamo and Government mail, or express and Government mail, or dynamo and express, $6.84; baggagemen handling either dynamo, express, or Government mail, $6.50; baggagemen, $6.16; flagmen and brakemen, $6. For service paid local or way freight rates under schedules now in effect—conductors, $7.74; brakemen, $6.24. For service paid through freight rates under schedules now in effect—conductors, $7.34; brakemen, $5.84. Yard service—car retarder operators, $8.44; foremen, $7.64; helpers, $7.16; switch tenders, $5.72.

The award was signed by all six of the arbitrators. Extracts from the award, the supporting opinion of the railroad appointees, and the dissenting opinion of the employee appointees follow:

The standard rates of pay per mile, per day, and per month for conductors, assistant conductors and ticket collectors, train baggagemen, train flagmen and brakemen, in passenger service, for conductors and brakemen in local or way freight service, for conductors and brakemen in through freight service, and for all classes of trainmen parties to this arbitration shall remain the same as established by agreement in 1924 and shall not be increased over the rates in effect on February 28, 1927.

In reaching this conclusion this board of arbitration has considered all the factors laid down by Congress in the transportation act of 1920 and followed by the Railroad Labor Board in its Decision No. 2.

The strongest argument advanced by the Order of Railway Conductors and the Brotherhood of Railroad Trainmen for an increase in wages of the classes of employees represented by them was the recent increase of 7½ per cent granted to these same classes in eastern and southeastern territory.

The record shows that the actual earnings of trainmen were more in the western district than in either the eastern or southeastern district before the 7½ per cent increases in these districts went into effect. The average annual earning of train service employees in the western district in 1925 was 7.4 per cent more than for the same year in the eastern district, and 6.5 per cent more than for the same year in the southeastern district.

The increase in basic rates of 7½ per cent in the East and in the Southeast should have the effect of bringing the average yearly income of conductors,

brakemen, and so forth, in those districts up to approximately the average income now received by the same classes of employees in the West.

The standard rates of pay per day shall be increased 7½ per cent for yardmen who are parties to this arbitration, effective March 1, 1927. The rates of pay in yard service shall be as follows: Car retarder operators, per day, $7.94; foremen, per day, $7.14; helpers, per day, $6.62; switch tenders, per day, $5.07.

On roads where the trainmen legislate for yardmasters and assistant yardmasters, the same increases will be added to the present rates as awarded to yard foremen.

The reasons for granting an increase of 7½ per cent to the men in yard service, while having denied any increase to the men in the train service involved in this arbitration, are as follows:

While the trainmen in the West have an average yearly wage approximately equal to 7½ per cent more than the average in the East before the increase of 7½ per cent was granted in the East, the yardmen in the West were not earning any more on an average yearly basis than they were earning in the East. The increases in the East and Southeast have had the effect of advancing the actual earnings received by the yardmen in those regions above what would be received without a similar increase to those rendering like service in the West.

Again, the board finds that by reason of previous wage adjustments the men in yard service are in relatively a much less favorable position as compared with men in train service than they were in 1915. On the average in that year, the annual wages of the two classifications were approximately the same. Now those in train service receive on an average about $300 per year more than the men in yard service. The board believes that if there be any difference in the character of the employment, the duties of the yardmen are more onerous than are the duties of the men in train service.

While apparently the yardmen will have an advantage after this increase, as compared with the trainmen, yet the yardmen work only by the day; they can not, as trainmen may do, run out the mileage of a basic day and part of another day all within eight hours.

The board believes that the trainmen under present standard wage rates will continue to earn more money per man employed, on an average annual basis, than will the yardmen even after this increase of 7½ per cent for the yardmen is in effect.

Finally, the record shows that about half of the yardmen live in cities of 100,000 or more; that a much larger percentage of yardmen than trainmen live in the larger cities. Obviously, living expenses are higher in the more populous communities.

Supporting opinion

We have joined in the award of this board and desire to state briefly our reasons for so doing. It is our opinion that the record would have justified a finding that the wages of all classes of employees before this arbitration board are now entirely fair to the men and that the western railroads are not in a position to absorb any increases in wage rates. The opinion of the board recognizes that in fixing wage rates consideration must be given to the economic condition of the territory directly affected. This we deem of vital importance in the light of the relatively unprosperous condition of the western railroads and the necessity of the public immediately bearing any substantial increases in transportation costs through the medium of the increased freight rates. Lower living costs in the West than in the East constitute another distinct difference in underlying conditions.

The case of the yardmen who are on a strictly hourly basis presents some points of differentiation from that of the trainmen. It is a fact that the preponderance of those yardmen live in the larger cities where rents and other living costs are higher than in the smaller communities, and it is also a fact that many of these men are employed in yards that are common between the western, eastern, and southeastern railroads. We have recognized the importance of composing differences of opinion so that a definite award may be made as contemplated by the act of Congress under which this board was created.

Dissenting opinion

We most strenuously dissent from the action of the majority in using the financial condition of the carriers involved as stated by them in the award as a factor in determining just and reasonable wages. In fact, the true interpretation

of the view expressed by the majority justified the conclusion that they not only used this condition as a factor but in fact adopted the additional theory that the carriers should be allowed to earn a return of 5¾ per cent or more on an assumed valuation, before the employees are entitled to just and reasonable wages determined by recognized and proper factors.

Decisions of numerous Federal judges were given in evidence in which it was held that the employees were entitled to receive just and reasonable compensation determined by comparison with wages received for like services by other employees engaged in the same line of work, even though no dividends were received on stock or interest paid on bonds. Decisions of the United States Railroad Labor Board were put in evidence in which it was held that ability to pay because of the financial condition of the carriers was not a factor in determining just and reasonable wages. In fact, this principle has been well settled by various tribunals of high standing in this country for a quarter of a century. Manifestly, it was a most serious error for the majority in this case to disregard the evidence and precedents so firmly established.

The only point that might have a bearing relates to the effect upon the cost of transportation to the public; but in this particular the interests of the public no doubt will be fairly taken care of by the Interstate Commerce Commission, which body has sole jurisdiction in the matter.

The majority have taken the task upon themselves of prejudging what the dollars and cents cost would be to the carriers if increases of wages had been granted to all men, both in this proceeding and also all other employees, by applying a set percentage to the total pay roll for 1926, when, as a definite matter of record in the case, it is shown that increased wage rates do not result in the same degree in raises in pay-roll totals.

The record is replete with proof that, for the work performed by these men who are asking for increased wage rates, the unit labor costs are dropping lower and lower, and less and less men are working, even though the tonnage handled has largely and gradually increased.

The majority has gone outside the record to state that obviously living expenses are higher in the more populous communities, and it dwells upon a showing (made by persons whom the employees had no chance or opportunity to cross-examine) that certain percentages of the men live in communities having certain populations, without at all differentiating between the small communities within metropolitan areas which bear all the living costs of the cities themselves.

The majority gave no weight to evidence regarding the wages paid in 53 trades in 54 cities in the United States which showed that journeymen mechanics are receiving from $2 to $6 per day of eight hours more than conductors, yard foremen, and helpers are paid for their basic day of eight hours, and that the helpers and apprentices are receiving $2 to $3 more per day than brakemen are paid for their basic day of eight hours. The average daily wage for skilled workmen and helpers, including hod carriers, in the building trades, shown by Exhibit 3, was $4.12 per day in 1913 and $10.22 in 1926, or an increase of $6.10 per day, 1926 over 1913. For skilled workmen in the printing and publishing trades (both newspaper and book and job) the average wage per day was $4.64 in 1913 and $9.23 in 1926, or an increase of $4.59 per day, 1926 over 1913. The wages and increases shown for conductors, trainmen, and yardmen for the same period were as follows: Passenger conductors (western district), average daily $5 in 1913 and $6.70 in 1926, or an increase of $1.70 per day, 1926 over 1913; passenger brakemen (western district) averaged $2.70 in 1913 and $4.70 per day in 1926, or an increase of $2 per day, 1926 over 1913.

The unfairness of statistical comparisons to show the average earnings of our classes as compared with the average earnings of employees in other industries grows out of the fact that employees in other industries are calculated as if belonging to their respective classes the year around, whether employed all or only a portion of the year, and the average number of days worked is calculated on that basis.

In fixing basic wages, earning power, without restriction as to working time of employees, can not justly be considered a factor, much less the controlling factor, as was done by the majority in this case, even when the actual average earnings can be determined. The evidence in the record of this proceeding clearly shows that the average earnings of our classes as indicated by the Jacobs exhibits are little more than a guess.

We are surprised the majority of the board are of the opinion that the strongest argument advanced by the conductors and trainmen for an increase in wages was the recent granting of 7½ per cent to these same classes in eastern and south-

eastern territory, because the matter was only mentioned briefly during the entire hearing. Plausible, but we believe unfair, use was made in this opinion of a comparison of the supposed earnings of conductors and trainmen in the eastern and southern districts with their supposed earnings in the western district. Moreover, when consideration is given the fact that these supposed average earnings are not average earnings per person at all but are derived by taking for the Class I roads the total compensation added together for the 12 months and dividing this sum by an average of the 12 counts for the territory made at the middle of each month, the unfairness of using this count as a divisor is clearly apparent. In addition to this, there is nothing to show that the statistical count involves or embraces the same men each month or in any two months, and as a matter of fact it does not.

One of the most serious errors made by the majority and one of possible far-reaching consequences is that their award disturbs wage levels which were built up through negotiations between the carriers and the employees during a series of years, and which were finally consummated and approved by the United States Railroad Administration and later accepted and approved by the United States Railroad Labor Board.

The only way that wage levels can be maintained or just and reasonable wages determined is by using the basic wage rates in considering increases or decreases through proceedings of this kind, because such wages are expressed in the agreements between the carriers and the employees and are facts about which an arbitration board need have no doubt, whereas to use earning power arrived at through admittedly uncertain and incorrect methods would necessitate wage adjustments from time to time as the factors used might determine.

The record is filled with evidence establishing the fact that conductors and trainmen must, upon public demand, work day or night, the majority of them every day or night in the year, going on duty any hour of day or night regardless of weather; and if, because of these demands, they earn more than many 5½-day-per-week workers, it is a strange conception of justice to use this earning power, fictitious or real, as a factor in determining the wages these conductors and trainmen should receive, when, by using a comparison of their basic wages with skilled worknen in other industries whose duties and responsibilities are fairly comparable to the duties and responsibilities of conductors and trainmen, a much larger increase would be clearly justified than that asked for by these employees in this proceeding.

In this dissent we have not called attention to each and every point in the award which has no foundation of fact in the record, nor to each and every misconstruction or faulty conclusion reached by the majority, nor to all the factors which should have been used; but we believe we have set forth sufficient facts found in the record to fully warrant our dissent.

Railroads—Train Service Board of Adjustment for the Southeastern Region

THE question at what rate a switchman used as a trainman on a work train in the Fort Pierce yard on the Florida East Coast Railway should be paid was raised in Docket 286, decided July 22, 1927. The carrier had paid an employee work-train rate. The committee of the Order of Railway Conductors and Brotherhood of Railroad Trainmen took up the matter and demanded that the employee be paid at the switchman's rate inasmuch as article No. 36, paragraph (a), of the agreement provided but one rate for any class of yard service. The committee further declined to consider making a new rule covering work-train service in yards.

The carrier contended that the employee was paid as a brakeman on a work train and that no rule existed separating road work-train service from yard work-train service.

The board of adjustment after hearing the case sustained the view of the committee.

Railroads—Train Service Board of Adjustment for the Western Region

THE Train Service Board of Adjustment for the Western Region has recently decided several cases relative to pay for deadheading.

Continuous Time

IN Decision No. 2368, April 20, 1927, an extra conductor on the Sioux City and Dakota Division of the Chicago, Milwaukee & St. Paul Railway was directed to deadhead from Sioux City to Wagner and there relieve a conductor employed on a branch line. He left Sioux City at 11.10 p. m., arrived at Yankton at 1.50 a. m., and departed from Yankton at 8.30 a. m., arriving at Avon at 2.50 p. m., where he took charge of the train as directed.

The first sentence of conductors' schedule rule 32 reads as follows:

> Deadheading (a). Conductors deadheading on railroad's business will be allowed one-half mileage on passenger trains and actual time or mileage on freight trains, at through freight rate.

As the conductor had deadheaded on freight trains from Sioux City to Avon he claimed pay for continuous time, 17 hours and 30 minutes, on a speed basis of 12½ miles per hour, the equivalent of 219 miles, instead of pay for 108 miles actual mileage offered by the carrier, contending that he was to be paid for the wait at Yankton from 1.50 to 8.30 a. m., according to the above printed rule.

The position of the carrier was as follows:

> Conductors' Schedule Rule 32 is not designed to allow payment for the interval of time at Yankton for which payment is claimed; moreover, this rule, prior to the date in question and subsequent thereto, has not been applied in a manner that would allow the payment claimed. The principle of continuous time applied to deadheading is not established by this rule or any other method of application.

The board sustained the claim of the conductor.

Constructive Transfer

IN Decision No. 2375, May 5, 1927, an engineer assigned to the Albuquerque extra board on the coast line of the Atchison, Topeka & Santa Fe Railway received notice that he was cut off. Before making any move he was sent to Belen, there to relieve an engineer for a time. When the latter reported for duty the former deadheaded back to Albuquerque and from there to Gallup where the main extra board is located and where he made seniority displacement.

The engineer laid claim for the deadhead trip, Belen to Gallup, because when he was cut off from the board at Albuquerque he was entitled to deadhead mileage to Gallup according to the practice of the road, which returns crews to that point when an assignment held by them at an outlying point is discontinued. Hence the company, after cutting off the engineer at Albuquerque and sending him to Belen before returning him to Gallup, should be considered as having taken the man from Gallup and should compensate him for the deadhead claim, according to rules.

The company refused to pay the claim alleging that the move to Gallup was in the nature of a seniority move which is never paid for.

The decision of the board was as follows:

> In view of the fact that the engineer was notified of being cut off the board at Albuquerque, claim is sustained.

Outlying Position

IN Decision No. 2383, May 9, 1927, a fireman whose run had been discontinued on the adoption of a new time-table notified the roundhouse foreman at Bakersfield, on the line of the Atchison, Topeka & Santa Fe Railway, that he desired to displace a fireman on the Oakland District at Richmond and received transportation to the point desired. He claimed pay for deadheading between those two points quoting paragraph (a), article 29, of the schedule, which reads in part as follows:

> Deadheading (a). Engineers and firemen deadheading on company's business on passenger trains will be paid for the actual mileage at 6.16 and 4.56 cents for engineers and firemen, respectively, per mile, and for deadheading on other trains 6.84 and 5.00 cents for engineers and firemen, respectively, per mile.

He further stated:

> Deadheading from an outlying job to a home terminal after such outpost job has been discontinued, such as in the case in question, does not constitute what is termed a seniority move; but a deadheading made necessary because of fluctuation in company's business should be paid for.

The position of the management was that "the entire move was one of seniority." The board, however, allowed the claim.

Railway Clerks—Southern Railway

AN INCREASE of 2½ cents per hour was awarded July 14, 1927, by a board consisting of A. H. Plant, selected by the carrier and Walter C. Clephane, appointed by the United States Board of Mediation, effective July 15, 1927, in the case of a request for an increase of 6 cents per hour made by the railway clerks of the lines included in the Southern Railway System.

The third member of the board, C. R. Briceland, selected by the employees, filed a dissenting opinion, from which the following extracts are taken.

> The evidence as presented in the hearing of this case warrants a greater increase than that as provided for in the award. From the time the last wage adjustment was made until the time conference between the carrier and the employees was held, the cost of living had advanced 5½ per cent while the purchasing power of the dollar had dropped from $1.247 to $1.193. This evidence is given in the carrier's own exhibit but is entirely disregarded, and the American standard of living is ignored.
>
> Including the highest rates of the most experienced and skilled clerical employees, the average monthly rate is only $121.60. Many of those so included—approximately 30 per cent—receive from $3.11 to $4.15 per day, and to those the award can be but a jest.
>
> The unusual prosperity of the carrier as shown by the evidence is apparently forgotten and the employees by this award are bluntly but firmly warned that they can not participate nor have any share in the marked increased net income of the carrier although their loyalty and efficiency is neither questioned nor challenged. The award places the dividends of the carrier above the welfare and the happiness of the employees.
>
> The award penalizes the employees for their peaceful and patient procedure, encouraging militancy, and discounts saneness.
>
> In the light of the evidence submitted, the undersigned can neither remain silent nor concur in the decisions of the majority, and therefore must dissent therefrom.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for June, 1927

By J. J. Kunna, Chief Statistician U. S. Bureau of Immigration

THE statistics for June, 1927, show 40,359 aliens admitted, comprising 24,000 immigrant and 16,359 nonimmigrant, making a grand total of 538,001 admissions—335,175 immigrant and 202,826 nonimmigrant—during the fiscal year ended June 30, 1927. Alien departures numbered 27,738—8,133 emigrant and 19,605 nonemigrant—for June, and 253,508—73,366 emigrant and 180,142 nonemigrant—for the year. The net increase of alien admissions over alien departures for the fiscal year just ended was 284,493, as against 268,351 for the previous fiscal year.

Canada and Mexico continue to be the chief sources of immigration since the present quota law became effective on July 1, 1924, these two countries contributing 45 per cent of the total of 335,175 immigrant aliens admitted during the fiscal year ended June 30, 1927, 81,506 coming from Canada and 67,721 from Mexico. Compared to the previous fiscal year, immigration from Canada decreased 10.5 per cent, 91,019 immigrants arriving from that country in 1926, while from south of the Rio Grande there was an increase of 24,405, or 56.3 per cent, only 43,316 immigrants coming from Mexico in the year 1926. Of the larger countries in Europe, Italy sent 8,253 immigrants in 1926 and 17,297 in 1927, an increase of 9,044, or 109.6 per cent, comprised largely of veterans of the World War and their wives and children, and of wives and children of United States citizens. The Irish Free State and Poland also sent a larger number of immigrants in 1927 than in 1926, the increase from the former being 3,576 and from the latter 2,085. The influx from two of the chief sources of present-day immigration from overseas, namely, Germany and Great Britain, decreased 1,908 and 1,787, respectively, as compared to the preceding year (1926).

The newcomers exhibit a preference for California, Illinois, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, and Texas. The compiled statistics for the fiscal year ended June 30, 1927, show that California will check up a gain of 26,029 new residents from immigration. Illinois through the same source received 20,723 new residents. Massachusetts found 25,907 newcomers within its borders, and Michigan expanded by 28,104, while New Jersey registered 17,059 gained by immigration. New York, the banner State in the Union as a rendezvous for immigrants intending to settle there, finds 87,864 potential citizens to add to its teeming millions. Pennsylvania claimed 20,097 of the new arrivals. Texas, which is exceeded only by the Empire State in the number of immigrants that find a home within its portals, has 43,139 strange residents from other lands, mainly Mexico, to care for.

An interesting side light is shown in the cold numerals telling of the distribution of the races by States of intended future permanent residence. One-fifth, or 8,676 out of 40,165, of the English choose New York State for their homes, while Massachusetts with 7,661 and

Michigan with 7,605 got a generous slice of the remainder. California with 2,862, Pennsylvania with 1,629, Maine with 1,528, Washington with 1,366, and New Jersey with 1,320, were not forgotten by the new English arrivals.

The French immigrants admitted during the past year, numbering 19,313, over 80 per cent of whom came from Canada, stay pretty close to the border after coming into the United States. New York State, with 4,337, was the destination of the largest number, followed by Massachusetts with 3,518, Michigan with 2,745, Connecticut with 1,314, New Hampshire with 1,307, Maine with 1,293, and Vermont with 835.

Over one-third, or 21,758, of the 56,587 German immigrants settled in New York State, where most of them land. New Jersey was given as the future home of 6,082 immigrants of this race, while Illinois with 5,325, Pennsylvania with 4,623, Ohio with 2,703, Michigan with 2,963, and Wisconsin with 2,594, received the bulk of the others.

The major portion of the 11,483 Hebrews stayed in New York State, 7,068 settling there. The other principal destinations for this race were Illinois (762), Pennsylvania (787), and New Jersey (524). The Irish also pin their faith to New York State, 17,967 out of a total of 44,726 intending to make their future home there. The next largest number from Ireland were destined to Massachusetts, 6,302 going to that State, while 4,786 went to Michigan, and 3,290 to Pennsylvania.

New York State likewise claimed the lion's share of the 18,529 Italians admitted last year, 7,146 settling in that State. The coal mines of Pennsylvania was another big drawing card for the erstwhile citizens of Italy, 3,285 going to the Keystone State. New Jersey attracted 1,421 Italian immigrants; Massachusetts, 1,028; Illinois, 1,026; Ohio, 896; and Connecticut, 669. The Michigan automobile industry claimed the attention of only 826 newcomers of this race.

Mexicans hug the border pretty well, going mainly to Texas, 42,014 out of a total of 66,766 remaining in the Lone Star State, where most of the immigrants of this race first land in the United States. California, with 13,509, received the next largest number of Mexicans for intended permanent residence, and Arizona with 4,697 was third in the list. A negligible number sought the Northern States as a field of future endeavor.

Of the 19,235 Scandinavians (Norwegians, Danes, and Swedes), 5,205 settled in New York, with Illinois (3,592), Minnesota (1,468), and the State of Washington (1,302) bringing up the rear of the big procession. The Scotch scatter pretty well. Of the 25,544 admitted last year, 5,355 were destined to New York, 5,025 to Michigan, 3,919 to Massachusetts, 1,947 to New Jersey, 1,837 to Pennsylvania, and 1,619 to California.

The other principal races or peoples were destined mostly to the States indicated as follows: African (black): New York, Massachusetts, and Florida; Dutch and Flemish: Michigan, New York, and New Jersey; Greek: New York, Pennsylvania, and Ohio; Polish: New York, Pennsylvania, and Illinois; Slovak: Pennsylvania, Ohio, and New York; Spanish American: New York, California, and Louisiana; and Welsh: Pennsylvania, Michigan, and New York.

Over two-thirds of the 335,175 immigrant aliens admitted during the fiscal year 1927 are in the age groups ranging from 16 to 37 years, 77,636 being from 16 to 21 years of age, 105,351 from 22 to 29 years, and 49,292 from 30 to 37 years. Children under 16 years of age numbered 51,689; adults from 38 to 44 years of age numbered 22,295, and 28,912 were 45 years of age and over. While the men outnumbered the women among the immigrants admitted last year by about 6 to 5, more of the latter than of the former were recorded as past the prime of life, 15,304 females, as against 13,608 males, giving their age as 45 years and over.

The immigrants admitted last year represented nearly all imaginable callings, but those listed as having no occupation, which includes mainly women and children, predominated, 125,561 being of this class. Teachers, numbering 2,428, led in the professional class, followed closely by the engineers with 2,395. Clerks and accountants poured in, with a total of 18,313, while 23,698 were farm laborers, 31,344 were servants, and 53,850 were common laborers looking for new opportunities in America.

Nearly four-fifths, or 55,402, of the emigrant aliens departing last year left to make their future homes in Europe. Italy, with 17,759, received the largest number, as usual, followed by Great Britain, with 6,479, while 4,748 went to Germany, 3,130 to Greece, 2,650 to Poland, 2,347 to Portugal, and 2,276 to Czechoslovakia. Over one-half of the wage-earners among the emigrant aliens departed gave their occupation as that of common laborer, 29,229 being recorded as of this class.

A total of 19,755 aliens were debarred from entering the United States during the fiscal year 1927, the major portion of these having been turned back at the land border stations, 14,686 to Canada and 1,958 to Mexico. The remaining 3,111 were rejected at the seaports of entry, mainly New York. While 3.5 per cent of the applicants for admission at all ports were debarred during the year, less than 1 per cent, or about 85 out of every 10,000, of the 364,153 alien arrivals at the seaports were denied admission. Failure to obtain a visa from American consuls, as required under the immigration act of 1924, was the principal cause for debarment at both the land and sea ports.

A high-water mark for deportations was recorded during the fiscal year 1927, a total of 11,662 aliens having been deported from the United States under warrant proceedings. This is an increase of 758, or nearly 7 per cent, over the previous record of 10,904 reached in the fiscal year 1926, notwithstanding the sudden drop in the number of deportations during the latter part of the past year. Aliens were deported at the rate of 1,066 a month from July to April last, but, owing to the lack of funds, only 526 were deported in May and 468 in June.

Some of the principal causes for deportation in 1927 were: Entering without proper visa—surreptitious entries—5,464; criminal and immoral classes, 1,525; and mentally or physically defective, 1,042. Of the third class, 817 had become public charges in hospitals and other institutions from causes existing prior to their entering the United States. These deportees were sent to nearly every section of the globe, 4,775 going to Europe, 566 to Asia, and 73 to Africa, Australia, and the Pacific Islands, while 6,248 went to countries in the

Western Hemisphere, principally Canada and Mexico. The number returned at the expense of the United States Government was 7,249, and 1,504 were returned at the expense of the steamship companies bringing them to our shores, while 1,638 were permitted to ship foreign one way, and 1,271 departed at their own expense as a compliance with the warrants of deportation.

While the greatest number of newcomers get their introduction to the United States under the eye of the Statue of Liberty, a large percentage enters by way of the international land boundaries. The New York figures for the fiscal year just ended show 165,510 immigrant aliens landed at that port, with the other ports on all coasts minor in comparison. At Boston, for instance, 8,080 immigrants entered the country; at Canadian Atlantic ports, 2,952; at Providence, 1,659; at Key West, 1,593; at San Francisco, 2,512; and at Seattle, 1,011. Only 34 immigrants entered through ports in Alaska, 135 in Porto Rico, and 192 in Hawaii. Immigrants reaching the United States by way of the Canadian border numbered 81,982, while 66,606 came through the stations along the Rio Grande.

The total annual quota is 164,667 and 161,422 of this number is allotted to Europe. During the fiscal year 1927, 158,070 aliens charged to the quota were admitted to the United States, a small increase over the preceding year, when 157,432 of the same class entered the country. The bulk of the admissions in the year 1927 came from Europe, 155,605 of the quota immigrants arriving that year being natives of that continent, the quotas for all of the principal countries sending immigrants to the United States having become exhausted before the close of the year. Swinging to the other extreme, one finds that, while the countries or regions in Asia, Africa, and the Pacific have a quota of 100 or more, the lands which sent scarcely any immigrants are Afghanistan, Bhutan, Siam, British Cameroon, Liberia, South West Africa, and Samoa. Muscal, Nepal, French Cameroon, Ethiopia, Ruanda and Urundi, Tanganyika, British Togoland, French Togoland, Nauru, New Guinea, and Yap did not send a single immigrant.

During the fiscal year 1927 a total of 15,809 aliens of the races ineligible to citizenship entered the United States, 9,083 coming in under the immigration act of 1924 as nonimmigrants under section 3 and 6,726 as nonquota immigrants under section 4, as follows:

ALIENS OF RACES INELIGIBLE TO CITIZENSHIP ENTERING THE UNITED STATES, JULY 1, 1926, TO JUNE 30, 1927

Classes under the act	Chinese	Japanese	East Indian	Korean	Pacific Islander
Government officials, their families, attendants, servants, and employees	149	502	37	7	8
Temporary visitors for business or pleasure	403	1,315	88	15	7
In continuous transit through the United States	5,142	571	20	3	2
To carry on trade under existing treaty	500	312	1	1	----
Total nonimmigrants	6,194	2,700	146	26	17
Residents of the United States returning from a visit abroad	1,814	4,275	21	17	----
Ministers and professors and their wives and children	3	72	2	1	----
Students	294	130	49	46	2
Total nonquota immigrants	2,111	4,477	72	64	2
Grand total	8,305	7,177	218	90	19

In Table 6 will be found figures showing how the 538,001 aliens admitted during the fiscal year 1927 under the immigration act of 1924 were recorded as immigrants or nonimmigrants based on last or intended future permanent residence in the United States. The table shows that while practically all (98.1 per cent) of the quota immigrants are newcomers (or immigrants) for permanent residence in this country, 108,620, or 38.2 per cent, of the number entering as nonquota immigrants under the act were either returning after a short stay abroad or coming for a temporary sojourn here. The table also shows that 1,797, or 1.9 per cent, of the nonimmigrant classes under the act came for an indefinite stay in the United States and, accordingly, for statistical purposes, were classified as immigrant aliens.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1926, TO JUNE 30, 1927

Period	Inward					Aliens debarred from entering [1]	Outward					Aliens deported after landing [2]
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens departed	Total	
	Immigrant	Nonimmigrant	Total				Emigrant	Nonemigrant	Total			
1926												
July	22,283	16,096	38,379	25,981	64,360	1,746	7,052	17,970	25,022	60,223	85,245	816
August	29,286	20,467	49,753	52,683	102,436	1,601	7,376	15,410	22,786	42,248	65,034	1,121
September	35,297	25,680	60,977	71,268	132,245	1,817	6,634	16,392	23,026	26,268	49,294	885
October	34,528	22,059	56,587	34,176	90,763	1,566	5,377	13,803	19,180	18,150	37,330	1,100
November	30,756	16,185	46,941	21,844	68,785	1,713	6,859	13,078	19,937	17,992	37,929	1,085
December	23,805	11,803	35,608	16,777	52,385	1,915	9,481	16,875	26,356	19,608	45,964	1,241
1927												
January	18,804	9,219	28,023	16,913	44,936	1,499	3,928	10,053	13,981	21,483	35,464	900
February	21,695	10,379	32,074	25,097	57,171	1,308	3,949	12,085	16,034	29,732	45,766	1,104
March	29,868	16,370	46,238	32,752	78,990	1,437	4,244	13,502	17,746	27,041	44,787	1,380
April	33,034	17,310	50,344	29,055	79,399	1,530	4,185	14,391	18,576	26,815	45,391	1,036
May	31,819	20,899	52,718	26,238	78,956	1,709	6,148	16,978	23,126	28,849	51,975	526
June	24,000	16,359	40,359	25,736	66,095	1,914	8,133	19,605	27,738	51,379	79,117	468
Total	335,175	202,826	538,001	378,520	916,521	19,755	73,366	180,142	253,508	369,788	623,296	11,662

[1] These aliens are not included among arrivals, as they were not permitted to enter the United States.
[2] These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

TABLE 2.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING JUNE, 1927, AND DURING FISCAL YEARS 1925-26, 1926-27, BY RACE OR PEOPLE, SEX, AND AGE GROUPS

Race or people	Immigrant			Emigrant		
	Fiscal year 1926	Fiscal year 1927	June, 1927	Fiscal year 1926	Fiscal year 1927	June, 1927
African (black)	894	955	90	865	870	84
Armenian	741	983	84	90	51	4
Bohemian and Moravian (Czech)	2,494	2,406	61	1,468	1,724	341
Bulgarian, Serbian, and Montenegrin	532	600	39	1,681	1,592	196
Chinese	1,375	1,051	68	2,873	4,117	251
Croatian and Slovenian	692	821	75	592	251	7
Cuban	1,476	1,919	219	1,287	980	149
Dalmatian, Bosnian, and Herzegovinian	75	69	3	545	380	1
Dutch and Flemish	3,156	3,125	169	993	1,005	193
East Indian	50	51	6	69	83	2
English	44,206	40,165	2,806	6,935	7,449	1,114
Finnish	674	629	25	560	577	154
French	22,237	19,313	1,447	1,277	1,761	325
German	58,675	56,587	2,485	4,509	5,515	1,039
Greek	1,385	2,557	277	5,188	3,140	225
Hebrew	10,267	11,483	986	341	224	19
Irish	42,475	44,726	2,226	1,225	1,432	120
Italian (north)	1,486	2,637	226	3,036	2,209	113
Italian (south)	7,888	15,892	1,588	16,968	15,627	842
Japanese	598	660	69	1,201	1,148	103
Korean	52	47	5	27	52	2
Lithuanian	393	549	19	439	331	61
Magyar	1,076	1,049	59	1,063	946	137
Mexican	42,638	66,766	7,429	3,158	2,774	90
Pacific Islander	2	8		1	7	
Polish	3,175	4,249	304	2,823	2,725	493
Portuguese	793	843	57	2,989	2,363	127
Rumanian	319	422	39	1,302	1,201	152
Russian	938	1,249	100	581	510	56
Ruthenian (Russniak)	505	445	47	65	19	
Scandinavian (Norwegians, Danes, and Swedes)	19,418	19,235	787	4,188	3,678	672
Scotch	27,208	25,544	1,509	1,912	1,930	135
Slovak	534	1,017	66	850	693	40
Spanish	699	1,065	115	2,972	2,781	361
Spanish American	2,519	3,185	340	1,404	1,792	394
Syrian	488	684	43	280	203	31
Turkish	197	112	9	201	166	12
Welsh	1,314	1,300	57	76	65	17
West Indian (except Cuban)	373	381	38	690	754	55
Other peoples	381	396	28	318	241	33
Total	304,488	335,175	24,000	76,992	73,366	8,133
Male	170,567	194,163	13,712	54,989	51,536	4,754
Female	133,921	141,012	10,288	22,003	21,830	3,379
Under 16 years	47,347	51,689	4,130	3,347	2,986	420
16 to 44 years	228,527	254,574	17,771	57,986	54,217	6,137
45 years and over	28,614	28,912	2,099	15,659	16,163	1,576

TABLE 3.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED TO AND INTENDED FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING JUNE, 1927, AND DURING FISCAL YEARS 1925-26, 1926-27, BY COUNTRIES

[Residence for a year or more is regarded as permanent residence]

Country	Immigrant			Emigrant		
	Fiscal year 1926	Fiscal year 1927	June, 1927	Fiscal year 1926	Fiscal year 1927	June, 1927
Albania	158	243	16	314	237	21
Austria	1,102	1,016	27	487	468	83
Belgium	718	764	19	491	482	67
Bulgaria	175	222	9	88	130	21
Czechoslovakia	2,953	3,540	149	2,301	2,276	388
Danzig, Free City of	210	223	4	1	6	
Denmark	2,549	2,505	173	691	536	93
Estonia	132	139	4	15	14	2
Finland	491	438	14	519	536	145
France, including Corsica	4,181	4,405	216	1,011	1,637	367
Germany	50,421	48,513	1,938	3,908	4,748	811
Great Britain and Northern Ireland:						
England	10,599	9,990	564	4,921	4,904	748
Northern Ireland	419	491	24	208	165	
Scotland	13,661	12,611	561	1,332	1,441	93
Wales	1,268	1,068	44	37	44	16
Greece	1,121	2,089	237	5,164	3,130	221
Hungary	906	813	40	871	841	128
Irish Free State	24,478	28,054	1,084	851	1,049	83
Italy, including Sicily and Sardinia	8,253	17,297	1,733	19,980	17,759	934
Latvia	298	403	14	58	21	5
Lithuania	636	770	50	408	314	57
Luxemburg	127	111	7	7	13	5
Netherlands	1,753	1,733	85	379	456	103
Norway	5,756	6,068	155	2,087	1,786	249
Poland	7,126	9,211	816	2,881	2,650	477
Portugal, including Azores, Cape Verde, and Madeira Islands	666	567	25	2,926	2,347	123
Rumania	1,211	1,270	145	1,404	1,248	162
Russia	1,766	1,183	86	181	239	23
Spain, including Canary and Balearic Islands	326	429	35	2,465	2,178	270
Sweden	8,513	8,287	309	1,150	1,115	316
Switzerland	1,994	2,121	124	486	594	91
Turkey in Europe	210	216	18	30	24	2
Yugoslavia	1,059	1,190	115	2,342	1,911	192
Other Europe	326	388	24	46	13	3
Total, Europe	155,562	168,368	8,864	60,040	55,402	6,299
Armenia	16	13	5	43	20	1
China	1,751	1,471	100	2,989	4,179	253
India	93	102	17	113	126	6
Japan	654	723	72	1,208	1,205	103
Palestine	250	464	28	173	142	12
Persia	56	33	2	27	33	6
Syria	429	590	18	208	185	30
Turkey in Asia	21	60	12	126	74	5
Other Asia	143	213	12	44	43	3
Total, Asia	3,413	3,669	266	4,931	6,007	419
Canada	91,019	81,506	6,108	2,173	1,953	194
Newfoundland	2,349	3,074	226	283	487	150
Mexico	43,316	67,721	7,482	3,198	2,957	195
Cuba	2,281	3,020	298	1,922	1,598	201
Other West Indies	941	999	72	1,917	2,134	215
British Honduras	39	108	1	45	20	5
Other Central America	1,335	1,663	233	521	701	132
Brazil	877	1,089	102	210	209	30
Other South America	2,230	2,688	244	1,215	1,244	206
Other America	6	4	3	1		
Total, America	144,393	161,872	14,769	11,485	11,303	1,328
Egypt	214	228	16	38	28	8
Other Africa	315	292	34	88	84	10
Australia	376	464	28	257	379	53
New Zealand	180	248	23	134	129	12
Other Pacific Islands	35	34		19	34	4
Total, others	1,120	1,266	101	536	654	87
Grand total, all countries	304,488	335,175	24,000	76,992	73,366	8,133

TABLE 4.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING JUNE, 1927, AND FROM JULY 1, 1926, TO JUNE 30, 1927, BY COUNTRY OR AREA OF BIRTH

[Quota immigrant aliens are charged to the quota; nonimmigrant and nonquota immigrant aliens are not charged to the quota]

Country or area of birth	Annual quota	Admitted					
		Quota immigrant		Nonimmigrant and nonquota immigrant		Total during June, 1927	Grand total, July 1, 1926, to June 30, 1927
		July 1, 1926, to June 30, 1927	June, 1927	July 1, 1926, to June 30, 1927	June, 1927		
Albania	100	99	6	728	64	70	827
Andorra	100	8		7	1	1	15
Austria	785	861	15	1,559	86	101	2,420
Belgium	[1] 512	549	13	1,639	81	94	2,188
Bulgaria	100	119		242	20	20	361
Czechoslovakia	3,073	3,030	52	3,966	331	383	6,996
Danzig, Free City of	228	213	4	60	9	13	273
Denmark	[1] 2,789	2,619	157	2,323	194	351	4,942
Estonia	124	132	5	116	10	15	248
Finland	471	456	16	1,724	155	171	2,180
France	[1] 3,954	3,592	138	6,109	474	612	9,701
Germany	51,227	49,649	2,013	14,488	854	2,867	64,137
Great Britain and Northern Ireland:							
England	[1] 34,007	12,341	670	26,273	2,206	2,876	38,614
North Ireland		889	40	485	20	60	1,374
Scotland		13,822	637	9,864	680	1,317	23,686
Wales		1,205	63	1,012	73	136	2,217
Greece	100	164	4	4,234	402	406	4,398
Hungary	473	492	16	1,831	108	124	2,323
Iceland	100	73	12	26	2	14	99
Irish Free State	28,567	31,566	1,214	5,484	322	1,536	37,050
Italy	[1] 3,845	4,033	203	37,776	4,194	4,397	41,809
Latvia	142	172	6	260	20	26	432
Liechtenstein	100	34	10	1		10	35
Lithuania	344	355	25	963	55	80	1,318
Luxemburg	100	102	5	128	8	13	230
Monaco	100	8		13	3	3	21
Netherlands	[1] 1,648	1,568	83	2,473	192	275	4,041
Norway	6,453	6,120	161	4,639	266	427	10,759
Poland	5,982	5,977	332	7,547	769	1,101	13,524
Portugal	[1] 503	451	21	2,834	185	206	3,285
Rumania	603	753	49	1,924	174	223	2,677
Russia	[1] 2,248	2,014	67	3,139	309	376	5,153
San Marino	100	72		4	1	1	76
Spain	[1] 131	162	7	6,706	700	707	6,868
Sweden	9,561	8,936	351	4,112	261	612	13,048
Switzerland	2,081	1,981	105	2,588	166	271	4,569
Turkey in Europe	[1] 100	84	2	1,151	40	42	1,235
Yugoslavia	671	639	38	2,602	231	269	3,241
Other Europe	(1)	265	9	193	17	26	458
Total, Europe	[1] 161,422	155,605	6,549	161,223	13,683	20,232	316,828
Afghanistan	100	1		1			2
Arabia	100	14		5	1	1	19
Armenia	124	63	7	114	9	16	177
Bhutan	100	1		1			2
China	100	125	5	8,484	697	702	8,609
India	100	112	13	578	72	85	690
Iraq (Mesopotamia)	100	78	3	29	2	5	107
Japan	100	23		7,325	715	715	7,348
Muscat	100			2			2
Nepal	100			1			1
Palestine	100	135	1	380	32	33	515
Persia	100	86	9	90	5	14	176
Siam	100	1		28	4	4	29
Syria	100	125	1	921	68	69	1,046
Turkey in Asia	(1)	36		882	142	142	918
Other Asia	(1)	196	5	192	20	25	388
Total, Asia	1,424	996	44	19,033	1,767	1,811	20,029

[1] Annual quota for colonies, dependencies, or protectorates in Other Europe, Other Asia, Other Africa, Other Pacific, and in America, is included with the annual quota for the European country to which they belong. Quota for Turkey in Asia is included with that for Turkey in Europe.

TABLE 4.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING JUNE, 1927, AND FROM JULY 1, 1926, TO JUNE 30, 1927, BY COUNTRY OR AREA OF BIRTH—Continued.

Country or area of birth	Annual quota	Admitted					
		Quota immigrant		Nonimmigrant and nonquota immigrant		Total during June, 1927	Grand total, July 1, 1926, to June 30, 1927
		July 1, 1926, to June 30, 1927	June, 1927	July 1, 1926, to June 30, 1927	June, 1927		
Cameroon (British)	100	1		2			3
Cameroon (French)	100						
Egypt	100	99	1	149	18	19	248
Ethiopia	100			1			1
Liberia	100	6	4	5	2	6	11
Morocco	100	29	10	24	5	15	53
Ruanda and Urundi	100						
South Africa	100	156	6	418	45	51	574
South West Africa	100	1					1
Tanganyika	100						
Togoland (British)	100						
Togoland (French)	100						
Other Africa	(1)	59	2	124	10	12	183
Total, Africa	1,200	351	23	723	80	103	1,074
Australia	121	164	13	3,502	250	263	3,666
Nauru	100						
New Zealand	100	112	3	1,065	86	89	1,177
New Guinea	100						
Samoa	100	3		16	3	3	19
Yap	100			5			5
Other Pacific	(1)	17	1	160	16	17	177
Total, Pacific	621	296	17	4,748	355	372	5,044
Canada				80,163	6,188	6,188	80,163
Newfoundland				5,280	375	375	5,280
Mexico				81,722	7,912	7,912	81,722
Cuba				9,575	1,328	1,328	9,575
Dominican Republic				964	120	120	964
Haiti				230	16	16	230
British West Indies		[1] 640	37	4,964	588	625	5,604
Dutch West Indies		[1] 31		171	22	22	202
French West Indies		[1] 32	2	64	6	8	96
British Honduras		[1] 53		92	8	8	145
Canal Zone				51	15	15	51
Other Central America				3,506	454	454	3,506
Brazil				1,628	152	152	1,628
British Guiana		[1] 56	3	161	21	24	217
Dutch Guiana		[1] 2		17	2	2	19
French Guiana		(1)					
Other South America				5,574	589	589	5,574
Greenland		(1)		2			2
Miquelon and St. Pierre		[1] 8	2	40	1	3	48
Total, America		822	44	194,204	17,797	17,841	195,026
Grand total, all countries	164,667	[2] 158,070	6,677	379,931	33,682	40,359	538,001

[1] Annual quota for colonies, dependencies, or protectorates in Other Europe, Other Asia, Other Africa, Other Pacific, and in America, is included with the annual quota for the European country to which they belong. Quota for Turkey in Asia is included with that for Turkey in Europe.

[2] Also includes aliens to whom visas were issued during the latter part of the fiscal year ended June 30, 1926, and charged to the quota for that year. (Nationality for quota purposes does not always coincide with actual nationality. See section 12 of the act.)

TABLE 5.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING JUNE, 1927, AND DURING FISCAL YEARS 1925–26, 1926–27, BY SPECIFIED CLASSES

[The number of immigrants appearing in this table and in Table 4 is not comparable with the number of statistical immigrant aliens shown in the other tables, by races, countries, States, and occupations]

Class	Fiscal year 1926	Fiscal year 1927	June, 1927
Nonimmigrants			
Government officials, their families, attendants, servants, and employees	5,666	5,683	538
Temporary visitors for—			
Business	19,951	22,515	1,824
Pleasure	36,663	37,903	4,828
In continuous transit through the United States	25,574	28,312	2,618
To carry on trade under existing treaty	904	1,201	85
Total	88,758	95,704	9,893
Nonquota immigrants			
Wives of United States citizens	[1] 6,810	10,084	1,335
Children of United States citizens	[1] 4,344	8,421	1,137
Residents of the United States returning from a visit abroad	83,754	95,910	6,668
Natives of Canada, Newfoundland, Mexico, Cuba, Haiti, Dominican Republic, Canal Zone, or an independent country of Central or South America	[2] 150,299	158,657	13,876
Their wives	[1] 965	889	86
Their children	[1] 190	189	26
Ministers of religious denominations	664	595	53
Wives of ministers	235	338	44
Children of ministers	436	721	112
Professors of colleges, academies, seminaries, or universities	151	138	8
Wives of professors	39	40	2
Children of professors	26	21	2
Students	1,920	1,833	104
Veterans of the World War	72	4,574	262
Wives of veterans	3	827	46
Children of veterans	8	980	47
Spanish subjects admitted to Porto Rico		10	1
Total	249,916	284,227	23,789
Quota immigrants (charged to quota)	157,432	158,070	6,677
Grand total admitted	496,106	538,001	40,359

[1] Wives, and unmarried children under 18 years of age, born in quota countries.
[2] Does not include aliens born in nonquota countries, who were admitted under the act as Government officials, visitors, returning residents, etc.

TABLE 6.—IMMIGRANT AND NONIMMIGRANT ALIENS (BASED ON LENGTH OF RESIDENCE) ADMITTED TO THE UNITED STATES DURING THE FISCAL YEAR ENDED JUNE 30, 1927, BY CLASSES (BASED ON STATUS OR CALLING) UNDER THE IMMIGRATION ACT OF 1924

Classes (under immigration act of 1924)	Classified according to length of residence		Total
	Immigrant	Nonimmigrant	
Government officials, their families, attendants, servants, and employees	914	4,769	5,683
Temporary visitors for business or pleasure		60,508	60,508
In continuous transit through the United States		28,312	28,312
To carry on trade under existing treaty	883	318	1,201
Total (under sec. 3)	1,797	93,907	95,704
Wives and children of United States citizens	18,361	144	18,505
Residents of the United States returning from a visit abroad	408	95,502	95,910
Natives of Canada, Newfoundland, Mexico, Cuba, Haiti, Dominican Republic, Canal Zone, or an independent country of Central or South America	146,321	12,336	158,657
Their wives and children	1,078		1,078
Ministers of religious denominations	578	17	595
Wives and children of ministers	1,059		1,059
Professors of colleges, academies, seminaries, or universities	120	18	138
Wives and children of professors	55	6	61
Students	1,309	524	1,833
Veterans of the World War (under act approved May 26, 1926)	4,517	57	4,574
Wives and children of veterans (under act approved May 26, 1926)	1,800	7	1,807
Spanish subjects admitted to Porto Rico (under act approved May 26, 1926)	1	9	10
Total (under sec. 4)	175,607	108,620	284,227
Quota immigrants (under section 5, charged to quota)	157,771	299	158,070
Grand total admitted under immigration act	335,175	202,826	538,001

ACTIVITIES OF STATE LABOR BUREAUS

Among the labor activities of State bureaus the following, reported either directly by the bureaus themselves or through the medium of their printed reports, are noted in the present issue of the Labor Review:

California.—Changes in volume of employment and pay roll in 757 establishments, page 164.

Colorado.—Accidents in coal mines and metal mines and quarries, page 54.

Georgia.—Annual report on workmen's compensation, page 85.

Idaho.—Report on mining accidents, page 55.

Illinois.—Changes in employment and earnings in factories, page 166.

Indiana.—Report of number of accidents, page 56.

Report on industrial aid for the blind, page 99.

Iowa.—Changes in volume of employment in specified industries, page 168.

Report on accidents in coal mines, page 56.

Maryland.—Volume of employment in that State, page 169.

Massachusetts.—Report of number of accidents, page 57.

New York.—Changes in employment and weekly pay rolls, page 169.

Pennsylvania.—Changes in employment and pay-roll totals, page 171.

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—— —— —— Accidents and accident prevention in machine building. Washington, 1919. 119 pp. (*Its* Bul. No. 256.)
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—— —— —— Proceedings of industrial accident prevention conference. Washington, 1926. 169 pp. (*Its* Bul. No. 428.)
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Grain dust explosion prevention. New York, 1920. 28 pp.

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Reprinted from Ophthalmology, October, 1926. 60 pp.

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Also safety requirements adopted by Industrial Commission and published in separate bulletins: Specific safety requirements for blowers and exhausters; building and construction work; fire drills in factories and lofts; foundries and core rooms; metal-working machinery; polishing and grinding machines; potteries; steel mills; traveling cranes; woodworking machinery; etc.

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—— —— Regulations of the Department of Labor and Industry.
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Encyclopedia of Industrial Health.

Published at present in brochure edition. Each brochure comprises one or more articles dealing with a particular subject, and is entitled "Occupation and Health." When all brochures have been published the International Labour Office will publish the complete encyclopedia in the form of a bound volume.

List of brochures published: 1. Introduction; 2. Hydrocyanic acid; 3. Mercury, compounds of mercury, and mines of mercury; 4. Carbon monoxide; 5. Hair cutting (hatters' furriers' processes); 6. Phosphorus, amorphous or red phosphorus; 7. Lucifer matches; 8. Benzene (benzol); 9. Tellurium; 10. Nickel carbonyl; 11. Litharge; 12. Fulminate of mercury; 13. Lead colours, and lead compounds; 14. Red lead; 15. Artificial abrasive and grinding wheels; 16. Tetrachlorethane; 17. Formaldehyde formalin; 18. Sugar (Sugar refining industry); 19. White lead; 20. Paraffin; 21. Diamond cutting; 22. Poisonous woods; 23. Calcium cyanamide; 24. Superphosphate industry; 25. Ankylostomiasis or hookworm disease; 26. Rubber or india rubber industry; 27. Asbestos; 28. Felt hat industry; 29. Methyl bromide; 30. Artificial silk; 31. Sulphur dioxide; 32. Breweries; 33. Acetanilide, acetic acid, acetic aldehyde, acetone; 34. Chlorine; 35. Foot-and-mouth disease; 36. Antracene, anthrax, antimony; 37. Alizarin, alkali, allyl alcohol, alum; 38. Nitric acid; 39. Acridine, acrolein, actinomycosis; 40. Hydrochloric acid; 41. Ammonia, amyl acetate, amyl alcohol, amylene; 42. Asphalt; 43. Primers or percussion caps; 44. Soap industry; 45. Picric acid; 46. Acids; 47. Air of the workroom; 48. Alabaster, alcohol (intoxication by); 49. Anguillulosis; 50. Ethyl alcohol; 51. Fluorine and hydrofluoric acid; 52. Formic acid; 53. Incandescent mantles industry; 54. Lead poisoning; 55. Methyl alcohol; 56. Oxalic acid; 57. Painting industry; 58. Miners' nystagmus; 59. Industrial waste waters; 60. Postal telegraphic and telephonic services; 61. Trinitrotoluene, trinitroxylene, trioxybenzene; 62. Tuberculosis-silicosis; 63. Aluminum, amber; 64. Mouth and teeth (occupational affections); 65. Woolen manufacture; 66. Bleaching powder and chloride of lime; 67. Carbon dioxide and carbonic-acid gas; 68. Coal miners' diseases.

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—— Removal of floating dust in grain elevators. Chicago, 1924. 32 pp.

—— Safe handling of chlorine. Chicago, 1926. 5 pp. (*Its* Safe practices pamphlet No. 71.)

NEW YORK (STATE). *Department of Labor.*
Industrial hygiene series. Albany.

Nine leaflets: 1. For workers in lead and antimony; 2. For workers in arsenic; 3. For workers in wood alcohol and derivatives; 4. For workers in mercury; 5. For workers in chromic acid and its salts; 6. For workers in benzol; 7-8. For painters—how to avoid lead poisoning; 9. Anthrax—how to avoid it.

—— —— Special bulletins. Albany, 1916 to date.

Partial list of subjects covered: Anthrax (No. 79); Dangers in manufacture of Paris green and Scheele's green (No. 83); Dangers in manufacture and industrial uses of wood alcohol (No. 86); Health hazards of chemical industry (No. 96); Health hazards of cloth-sponging industry (No. 89); Health hazards of wet grinding (No. 129); Hygienic conditions in steam laundries (No. 130); Industrial posture and seating (No. 104).

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Survey of industrial health hazards and occupational diseases in Ohio, by E. R. Hayhurst. Columbus, 1915. 438 pp.

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Coal-dust hazards in industrial plants, by L. D. Tracy. Washington, April, 1921. 6 pp., mimeographed. (*Its* Serial No. 2242.)

—— —— Control of hookworm infection at the deep gold mines of the Mother Lode, California, by J. C. Cumming and J. H. White. Washington, 1917. 52 pp. (*Its* Bul. No. 139.)

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CALIFORNIA SAFETY NEWS. Published by Industrial Accident Commission of California, 911 Pacific Finance Building, Los Angeles, Calif.

EXPLOSIVES ENGINEER. Published at Wilmington, Del.

(ILLINOIS) LABOR BULLETIN. Published by Illinois Department of Labor, Springfield, Ill.

INDUSTRIAL ENGINEER. Published by McGraw-Hill Book Co., 7 South Dearborn Street, Chicago, Ill.

INDUSTRIAL MANAGEMENT. Published by Engineering Magazine Co., 381 Fourth Avenue, New York.

INDUSTRIAL POWER. Published by Maujer Publishing Co., 608 South Dearborn Street, Chicago, Ill.

INDUSTRIAL SAFETY SURVEY. Published by International Labour Office, Geneva, Switzerland.

INTERNATIONAL LABOUR REVIEW. Published by International Labour Office, Geneva, Switzerland.

JOURNAL OF INDUSTRIAL HYGIENE. Published by Harvard School of Public Health, Mount Royal and Guilford Avenues, Baltimore, Md.

LOCOMOTIVE. Published by Hartford Steam Boiler Inspection and Insurance Co., Hartford, Conn.

MANUFACTURING INDUSTRIES. Published by Ronald Press Co., 15 East Twenty-sixth Street, New York.

MONTHLY LABOR REVIEW. Published by United States Bureau of Labor Statistics, Washington, D. C.

NATIONAL FIRE PROTECTION ASSOCIATION QUARTERLY. Published by National Fire Protection Association, 40 Central Street, Boston, Mass.

NATIONAL SAFETY NEWS. Published by National Safety Council, 108 East Ohio Street, Chicago, Ill.

NATION'S HEALTH. Published by Modern Hospital Publishing Co., 22 East Ontario Street, Chicago, Ill.

(NEW JERSEY) INDUSTRIAL BULLETIN. Published by New Jersey Department of Labor, Trenton, N. J.

(NEW YORK STATE) INDUSTRIAL BULLETIN. Published by New York State Department of Labor, Albany, N. Y.

OREGON SAFETY NEWS. Published by Oregon and Columbia Basin Division of National Safety Council and Labor Bureau and Industrial Accident Commission, Oregon Building, Portland, Oreg.

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WESTERN SAFETY JOURNAL. Published at 311 California Street, San Francisco, Calif.

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Data on industrial accidents, taken from the report of the division of industrial safety of this department, are given on page 57 of this issue.

MINNESOTA.—Industrial Commission. *Workmen's compensation decisions. Vol. 4, 1926–27. Minneapolis, 1927. 348 pp.*

This volume covers a period of seventeen months, beginning January 1, 1926, and ending May 31, 1927, and presents decisions of the State supreme court and of the industrial commission for that period; and also a reprint of one decision of the industrial commission printed in volume 3 for the purpose of correcting an error. There are 58 decisions of the State supreme court and 36 decisions of the industrial commission given in this volume. Digest headings and an analytical index and table of cases render the volume convenient for reference. The four volumes of this series, together with an earlier bulletin (No. 17) issued by the State Department of Labor and Industry, give a complete record of important decisions rendered since the workmen's compensation law became effective in this State.

NEW JERSEY.—Department of Labor. Bureau of Statistics and Records. *The industrial directory of New Jersey, 1927. Hoboken, 1927. xxxv, 671 pp., map.*

NORTH CAROLINA.—Department of Labor and Printing. *Thirty-fifth report, 1925–1926. Raleigh, 1926. xii, 369 pp., charts.*

Individual reports are given on the various industries of the State, including lists of firms, on farms and farm labor, accidents in mines, and the work of the Public Employment Service, the Bureau of Labor for the Deaf, and the Division of Service to World War Veterans.

VIRGIN ISLANDS.—Governor. *Annual report for the fiscal year ended June 30, 1926. Washington, 1926. 11 pp. (69th Cong., 2d sess., S. Doc. No. 170.)*

UNITED STATES.—Department of Commerce. Bureau of Mines. *Bulletin 268: Coal-dust explosion tests in the experimental mine, 1919 to 1924, inclusive, by George S. Rice, J. W. Paul, and H. P. Greenwald. Washington, 1927. xi, 176 pp., map, diagrams.*

This bulletin contains the results of a series of tests as to the explosibility of various kinds of coal dust and the progress of explosive combustion as shown by samples of gas collected in advance, at the time, and after the passage of the flame. The effect of rooms on the development of explosions was also studied and different types of rock-dust barriers were tested. The appendix contains the recommended American practice for rock dusting coal mines to prevent coal-dust explosions.

—— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 438: Wages and hours of labor in the motor-vehicle industry, 1925. Washington, 1927. iii, 114 pp.*

This bulletin presents in detail the results of the bureau's investigation of wages and hours of labor in the motor-vehicle industry in 1925. The most important data secured in this study were published in the Review for August, 1926 (pp. 108–115).

—— —— —— *Bulletin No. 439: Handbook of labor statistics, 1924–1926. Washington, 1927. xi, 828 pp.*

Reviewed briefly on page 38 of this issue.

—— —— —— *Bulletin No. 442: Wages and hours of labor in the iron and steel industry, 1907 to 1926. Washington, 1927. iv, 192 pp.*

Advance summaries of the data obtained in this study were published in the Review for September, 1926 (pp. 75–91), October, 1926 (pp. 124–155), and May, 1927 (pp. 164, 165).

—— —— —— *Bulletin No. 443: Wages and hours of labor in woolen and worsted goods manufacturing, 1910 to 1926. Washington, 1927. iii, 44 pp.*

—— —— —— *Bulletin No. 446: Wages and hours of labor in cotton-goods manufacturing, 1910 to 1926. Washington, 1927. iii, 49 pp.*

Advance summaries of the data presented in Bulletins 443 and 446 were published in the Review for February, 1927, pages 57 and 52, respectively.

—— —— —— *Bulletin No. 447: Safety code for rubber mills and calenders. Washington, 1927. v, 11 pp., illustrated. (International Association of Industrial Accident Boards and Commissions and the National Safety Council, Rubber Section, sponsors.)*

—— Department of the Interior. *Annual report of the Governor of Alaska, for fiscal year ending June 30, 1926. Washington, 1926. v, 142 pp., map.*

The data on labor conditions and wages in this report show practically no changes as compared with the information contained in the report for the fiscal year 1924–25, which was summarized in the April, 1926, Review (pp. 60, 61).

—— Government Printing Office. Superintendent of Documents. *Children's Bureau and other publications relating to children. Washington, April, 1927. 14 pp. Price list 71—8th edition.*

UNITED STATES.—Treasury Department. Public Health Service. *Benzol poisoning as an industrial hazard. Review of studies conducted in cooperation with the subcommittee on benzol of the committee on industrial poisoning of the National Safety Council, by Leonard Greenburg. Washington, 1926. 63 pp. (Reprint No. 1096 from Public Health Reports, July 2, 9, 23, 1926.)*

This report contains a bibliography in addition to a review of the various studies of benzol poisoning. The final report of the National Safety Council committee was reviewed in the Labor Review of September, 1926 (pp. 39–44).

Official—Foreign Countries

AUSTRALIA (NEW SOUTH WALES).—Director-General of Public Health. *Report, 1925. Section I–C, Industrial hygiene, pp. 52–96. Sydney, 1927.*

This section of the annual report for 1925 of the New South Wales Director-General of Public Health contains a report on standards to be used in diagnosing lead poisoning and an account of an investigation of a sugar-dust explosion which occurred in a sugar refinery in Sydney in January, 1926.

BULGARIA.—Ministerul Industriei şi Comerţului. Institutul de Statistică Generală a Statului. *Statistica preţurilor pe anul 1926. Bucharest, 1927. 99 pp. [Partly in French.]*

These official price statistics for Bulgaria for 1926 include average prices of articles of food, clothing, and shoes, household expenses, and a cost-of-living index for different cities based on a family budget (1914=100).

CANADA.—Bureau of Statistics. General Statistics Branch. *The Canada yearbook, 1926. Ottawa, 1927. xxxiv, 1057 pp., maps, charts.*

Considerable space in this volume is devoted to price statistics, wages, and other labor data. Much of the material, however, has already appeared in other publications.

—— (ALBERTA).—Bureau of Labor. *Annual report, 1926. Edmonton, 1927. 30 pp., charts.*

—— (ONTARIO).—Department of Labor. *Seventh annual report, 1926. Toronto, 1927. 65 pp.*

The index number of volume of employment in Ontario industries in the fiscal year 1926 was 4.5 points higher than in the previous year. The index for the manufacturing group rose 6.7 points, that of employment in iron and steel increasing 11.7 points. On the other hand, the indexes for logging and mining declined, respectively, 11.2 and 3.4 points in 1926 as compared with 1925.

—— Department of Mines. *Thirty-fifth annual report. Vol. XXXV, Part I, 1926. Toronto, 1927. vi, 183 pp., diagrams.*

Data on accidents, taken from this report, are given on page 58 of this issue.

CEYLON.—Department of Statistics and Office Systems. *The Ceylon blue book, 1926. Colombo, 1927. [Various paging.]*

Gives in much detail statistical information as to the finances, government, political organization, and social, economic, and industrial situation of the country.

COSTA RICA.—Direccion General de Estadistica. *Anuario estadistico, año 1925. San Jose, 1926. 263 pp.*

In this volume, the yearbook of Costa Rica, comparative vital, agricultural, and commercial statistics are given covering specified years ending with 1925.

GERMANY.—[Reichsarbeitsministerium.] Reichsarbeitsverwaltung. *Die Tarifverträge im deutschen Reiche am 1. Januar 1926. Berlin, 1927. 21*, 52 pp.*

—— Reichskohlenrat. *Statistische übersicht über die Kohlenwirtschaft im Jahre 1926. Berlin, 1927. 78 pp., charts.*

GREAT BRITAIN.—Mines Department. Safety in Mines Research Board. *Paper No. 35: Flame-proof electrical apparatus for use in coal mines. Third report—Ring-relief protection, by H. Rainford and R. V. Wheeler. London, 1927. 21 pp., diagrams and illustrations.*

—— Ministry of Labor. *Report for the year 1926. London, 1927. 139 pp. (Cmd. 2856.)*

Contains a review of industrial relations, unemployment, unemployment insurance activities, juvenile employment, the administration of the trade board acts, labor statistics, and international labor relations. The principal matter of interest in industrial relations during the year was the coal stoppage, with the so-called general strike introducing it. Unemployment was severe, the registered number of unemployed being 1,251,706 on January 4, 1926, and the number at the end of the year being 1,351,000.

The unemployment insurance scheme suffered not only from the extent of unemployment but from the effect of the unemployment insurance act of 1925 (see Labor Review, November, 1925, p. 176), by which its revenue during the year was decreased by £6,800,000 (pound at par =$4.8665) in respect of employers' and workers' contributions. By the economy act of 1926, the fund lost £1,700,000 per annum, the Government's contribution being decreased by this amount. As a consequence, the debt of the fund rose from £7,262,569 on December 31, 1925, to £22,640,000 on December 31, 1926.

INTERNATIONAL LABOR OFFICE.—*Studies and reports, series A (industrial relations), No. 27: Industrial relations in the United States, by H. B. Butler. Geneva, 1927. 135 pp.*

The concluding chapter of this report is reprinted on page 39 of this issue.

—— *Studies and reports, series F (industrial hygiene), No. 10: The medical inspection of labor. Report of the meeting of medical inspectors of labor held in Düsseldorf, September 15, 16, 1926. Geneva, 1926. 80 pp.*

This report contains summaries of the speeches of the delegates, outlining the work of the medical inspection service in their respective countries.

JAPAN.—Cabinet Impérial. Bureau de la Statistique Générale. *Résumé statistique de l'Empire du Japon. 41e année. Tokyo, 1927. x, 169 pp., charts.*

A recapitulation in Japanese and French of the Forty-fifth Statistical Annual of Japan published by the Government of that country in November, 1926. Wage tables are given in Section VIII, and statistics on cooperative societies in Section XI.

—— Department of Finance. *Twenty-sixth financial and economic annual, 1926. Tokyo [1927?]. vi, 228 pp., charts. [In English.]*

Coal production statistics from this report are given on page 37 of this issue.

POLAND.—Office Central de Statistique. *Annuaire statistique de la République Polonaise, 1925–1926. Warsaw, 1927. xxxviii, 551 pp.*

Includes statistics on wages, prices, and production.

SCOTLAND.—Board of Health. *Eighth annual report, 1926. Edinburgh, 1927. 379 pp. (Cmd. 2881.)*

Contains reports on general hygiene and housing, on a number of special diseases and methods of treatment, school health administration, supervision of the food supply, the administration of the widows', orphans', and old-age contributory pensions act, the national health insurance plan, poor relief, and miscellaneous services, with a number of appendixes and tables. A summary of the report on the work done under the widows', orphans', and old-age contributory pensions act is given on pages 87 to 89 of this issue of the Review.

SWEDEN.—[Socialdepartementet.] Socialstyrelsen. *Stockholms stads statistik X, Specialundersokningar No. 13: Statistisk undersökning angående levnadskostnaderna i Stockholm, 1922–1923. Stockholm, 1927.* [*Various paging.*]

Data on cost of living taken from this publication are given on page 214 of this issue.

UNION OF SOUTH AFRICA.—Office of Census and Statistics. *Report of the agricultural and pastoral production of South Africa, 1924–25. Agricultural census, No. 8, 1925. Cape Town, 1927. 180 pp.*

Unofficial

BRUNNER, EDMUND DE S. *Village communities. New York, George H. Doran Co., 1927. 244 pp.* (*American village studies of Institute of Social and Religious Research.*)

The last of a series of five volumes embodying the results of a national study of the agricultural village and its community in the United States. The first part of this volume summarizes the results of the entire study; the second contains individual studies of 8 of the 140 villages surveyed. One chapter deals with the economic life of villages.

CHASE, STUART, AND SCHLINK, F. J. *Your money's worth: A study in the waste of the consumer's dollar. New York, Macmillan Co., 1927. viii, 285 pp.*

Reviewed on page 204 of this issue.

COMITÉ CENTRAL DES HOUILLÈRES DE FRANCE ET CHAMBRE SYNDICALE FRANÇAISE DES MINES MÉTALLIQUES. *Annuaire—houillères, mines de fer, mines métalliques, 1927. Paris, 1927. 842 and 234 pp.*

Part IV of this volume includes statistics on production and wages in coal mines in France in 1924.

CONGRÈS INTERNATIONAL D'ORIENTATION PROFESSIONNELLE FÉMININE. *Bordeaux (France), September 23–26, 1926. Bordeaux, 1926. 224 pp.*

A brief account of this congress was published in the January, 1927, Review (p. 119).

DAS, RAJANI KANTA. *The labor movement in India. Berlin, Walter de Gruyter & Co., 1923. x, 112 pp.*

Describes the old industrial organization and its supersession by modern industrialism, the origin and development of the labor movement, its nature and significance, and its effects and general aspects.

—— *Production in India. Calcutta, Karunabindu Biswas, 10 Cornwallis Street, 1924. x, 180 pp.*

Contains a study of the resources, industries, and productivity of India, with a brief bibliography of works on the subject.

DU PONT DE NEMOURS & CO., E. I. (INC.). *Precautions in the use of Duco. Wilmington, 1925. 15 pp. 3d ed.*

Information from this pamphlet is published on page 60 of this issue.

FISH, RUSSELL CONWELL. *Index-digest of life, accident, and health insurance decisions (cumulative), 1921–1926. Indianapolis, 1927. 213 pp.*

FISHER, IRVING. *The making of index numbers: A study of their varieties, tests and reliability. Boston, Houghton Mifflin Co., 1927. xxxiii, 538 pp., diagrams.*

The third edition, constituting an exact reprint of the second except for an appendix dealing with recent literature on the subject.

FOSTER, WILLIAM TRUFANT, and CATCHINGS, WADDILL. *Business without a buyer. Boston, Houghton Mifflin Co., 1927. xx, 205 pp., diagrams.*

An abbreviation in more popular form of the authors' previous works entitled "Money" and "Profits."

GRAVES, SHELDON H. *The rights of employers in inventions made by employees, with notes on trade secrets. New York, 25 Broadway, 1926. 8 pp.*

GRAY, ALEXANDER. *Family endowment—a critical analysis. London, 1927. 136 pp.*

The author discusses among other problems, the effect of family endowment on wages, on the birth rate, and on the family. He holds that the "extreme doctrines" now being promulgated in the name of family endowment are imperiling the orderly and healthy progress of social insurance.

INTERNATIONAL UNION OF WOODWORKERS. *Wages and working conditions of woodworkers in various countries, October 1, 1926 (second report). Amsterdam, June, 1927. 33 pp.*

Figures on wages and hours, taken from this report, are given on page — of this issue.

JOSHI, N. M. *The trade-union movement in India. Poona, Aryabhushan Press, 1927. 32 pp.*

Reviewed on page 96 of this issue.

KRAMER, STELLA. *The English craft gilds: Studies in their progress and decline. New York, Columbia University Press, 1927. xi, 228 pp.*

LABOR WHO'S WHO, 1927. *A biographical directory to the national and local leaders in the labor and cooperative movement. London, Labor Publishing Co. (Ltd.), 1927. xvi, 245 pp.*

LAIDLER, HARRY W. *A history of socialist thought. New York, Thomas Y. Crowell Co., 1927. xxii, 713 pp., illus.*

Reviews the history of socialist views and ideas from the time of the early Hebrews to the present day, with description of the life and character of each of the principal personalities involved in the various movements.

LLOYD, W. FRANCIS, and AUSTIN, BERTRAM. *Capital for labor. New York, Dodd, Mead & Co., 1927. 142 pp.*

An analysis of the British industrial situation with proposals for the solution of the problem involved. Emphasizes the importance of high wages.

METROPOLITAN LIFE INSURANCE CO. Policyholders' Service Bureau. *Report No. 58: Employees' mutual benefit associations. New York [1927?]. 27 pp.*

This report covers the policies of more than 60 firms in the provision of insurance through mutual benefit associations. The type of plan, membership, method of administration, amount of dues and company contributions, amount of benefits, both insurance and medical, and other employee activities supervised by the associations are dealt with in the report.

MILLS, CHARLES M. *Vacations for industrial workers. New York, Ronald Press Co., 1927. 328 pp. (Research series of Industrial Relations Counselors (Inc.).)*

Reviewed briefly on page 49 of this issue.

NATIONAL CIVIC FEDERATION. Industrial Welfare Department. *Old-age pensions conference, New York City, April 29, 1927. New York, 1927. 43 pp.*

The report of the conference includes a brief discussion of old-age pensions and compulsory old-age insurance of wage workers, another dealing with the economic value of old-age pensions, and four papers describing, respectively, the retirement plans of the Western Clock Co., All America Cables (Inc.), the Equitable Trust Co., of New York, and the Otis Elevator Co.

NATIONAL CONFERENCE OF CATHOLIC CHARITIES. *Proceedings of the twelfth session, held at Buffalo, N. Y., September 26–30, 1926. Washington [1927?]. vii, 474 pp.*

Among the subjects taken up at this meeting which are of special interest from a labor viewpoint were: The relation of industry to the child, the relation of industry to the aged, and the possibilities and limitations of trade-unionism and of legislation in improving the status of low-income families.

NATIONAL INDUSTRIAL CONFERENCE BOARD (INC.). *The cost of living in foreign countries. New York, 247 Park Avenue, 1927. xv, 402 pp.*

Reviewed briefly on page 211 of this issue.

—— *Industrial group insurance. New York, 247 Park Avenue, 1927. 44 pp.*

Reviewed on page 84 of this issue.

OHIO STATE UNIVERSITY. College of Commerce and Administration.—Bureau of Business Research. *Proceedings of management week, October 28 and 29, 1926. Part I—Business statistics section. Columbus [1927?]. vii, 72 pp., charts.*

—— —— —— —— *Part II—Industrial management section. Columbus [1927?]. vii, 134 pp.*

OLIVIER, MAURICE. *Les nombres indices de la variation des prix. Paris, Marcel Giard, 1927. 483 pp.*

The author not only gives the history of price indexes and the theories and methods used in their computation but also discusses the use of such indexes in basing wages on cost of living and in making international comparisons of real wages.

RUSSELL SAGE FOUNDATION. Library. *Bulletin No. 83: Adult education—a selected bibliography. New York, 130 East 22d Street, June, 1927. 4 pp.*

SIEGFRIED, ANDRÉ. *America comes of age: A French analysis. New York, Harcourt, Brace & Co., 1927. x, 358 pp., maps.*

An analysis of American social, economic and political life, including a chapter on labor and the standard of living.

TRADE-UNION CONFERENCE ON ELIMINATION OF WASTE IN INDUSTRY. *Held in Philadelphia, Pa., April 9 and 10, 1927. Washington, American Federation of Labor, 1927. 69 pp. (Reprinted from American Federationist, June, 1927.)*

An account of this conference was published in the Review for July, 1927 (pp. 41–43).

TRANSVAAL CHAMBER OF MINES. Gold Producers' Committee. *Mining industry arbitration board, 1926–1927. Argument of employers, statements of evidence, memoranda and statistics, and arbitrators' report. Johannesburg, 1927. 601 pp.*

VIRGINIA, UNIVERSITY OF. *Record extension series, Vol. X, No. 12, August, 1926: The laws of Virginia as they affect women and children, by Mary Elizabeth Pidgeon. Charlottesville, 1926. 29 pp., illustrated.*

A bulletin prepared for the use of civil government classes, girls' clubs, new voters' leagues, civic organizations, and school associations.

WOMEN'S NATIONAL LIBERAL FEDERATION. Family Endowment Enquiry Committee. *Final report—children's allowances. London, 1927. 22 pp.*

According to this committee the time has arrived when something definite should be done in England to bring the matter of children's allowances into practical politics.

WORKERS' EDUCATION BUREAU OF AMERICA. *Brief reading list No. 36: Workers' education—a selected list of titles of books and articles prepared in connection with the fifth national convention, Boston, 1927. Boston, 1927. 44 pp.*

ZENTRALVERBAND DEUTSCHER KONSUMVEREINE. *Jahrbuch, 1927, Vol. I. Hamburg, 1927. xvi, 702 pp., diagrams.*

Contains a wealth of detailed statistical data concerning German cooperative societies, but especially those affiliated with the Central Union of German Consumers' Societies.

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